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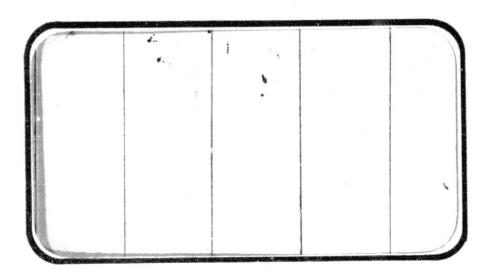
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NATIONAL AERONAUTICS AND SPACE ADMINISTRATION

NASA CR-144579



(NASA-CR-144579) LCW SUPERSONIC STABILITY AND CONTROL CHARACTERISTICS OF .015-SCALE (REMOTELY CONTROLLED ELEVON) MODEL 44-0 CF SPACE SHUTTLE ORBITER TESTS IN NASA/LARC 4-FT UPWT (LEG 1) (LA63A) Aerothermodynamic G3/18 08766

N76-15245

Unclas

SPACE SHUTTLE

AEROTHERMODYNAMIC DATA REPORT



JOHNSON SPACE CENTER HOUSTON, TEXAS

DATA MANagement services SPACE DIVISION

DMS-DR-2270 NAGA CR-144,579

LOW SUPERSONIC STABILITY AND CONTROL CHARACTERISTICS

OF A O.O15-SCALE (REMOTELY CONTROLLED ELEVON)

MODEL 44-0 OF THE SPACE SHUTTLE ORBITER

TESTED IN THE NASA/Larc 4-FOOT UPWT (LEG 1)

(LA63A)

by

Joe D. Gamble, JSC

Prepared under NASA Contract Number NAS9-13247

bу

Data Management Services
Chrysler Corporation Space Division
New Orleans, La. 70189

for

Engineering Analysis Division

Johnson Space Center
National Aeronautics and Space Administration
Houston, Texas

WIND TUNNEL TEST SPECIFICS:

Test Number:

Larc No. 1 UPWT 1118

NASA Series Number:

LA63A

Model Number:

44-0

Test Dates:

17 through 18 July, 1975

Occupancy Hours:

14

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LOW SUPERSONIC STABILITY AND CONTROL CHARACTERISTICS

OF A 0.015-SCALE (REMOTELY CONTROLLED ELEVON)

MODEL 44-0 OF THE SPACE SHUTTLE ORBITER

TESTED IN THE NASA/Larc 4-FOOT UPWT (LEG 1)

(LA63A)

by

Joe D. Gamble, JSC

ABSTRACT

The investigation was conducted in the NASA/Langley Research Center Unitary Plan Wind Tunnel, Test Section 1 from July 17 to 18, 1975. The model was a Langley-built 0.015-scale SSV Orbiter model with remote independently operated left and right elevon surfaces. The objective of the test was to generate a detailed aerodynamic data base for the current Shuttle Orbiter Configuration. Special attention was directed to definition of non-linear aerodynamic characteristics by taking data at small increments in angle of attack, angle of sideslip, and elevon position.

Six-component aerodynamic force and moment and elevon position data were recorded over an angle of attack range from -2° to 20° at angles of sideslip of 0° and $\pm 2^{\circ}$. Additional tests were made over an angle of sideslip range from -6° to 8° at selected angles of attack.

The test Mach numbers were 1.5 and 2.0 while the Reynolds number was held at a constant 2.0 x 10^6 per foot.

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ω

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SCHEDULE OF COEFFICIENTS:

100

- (A): CL, CD, L/D, CA, CLM vs. ALPHA CLM vs. CN CBL, CYN, CY vs. ALPHA
- (B): CBL, CYN, CY, CL, CD, CLM vs. BFTA
- (C): CBL, CYN, CY, CL, CD, CLM vs. AILRON
- (D): DCYNDB, DCBLDB, DCYDB vs. ALPHA

VARYING CONDITIONS:

- (A): MACH, ELEVON
- (B) ELEVON

INTRODUCTION

The NASA is continuing experimental and analytical development of an aerodynamically sound and effective Space Shuttle vehicle. Extensive wind tunnel support has been devoted to this vehicle, especially the Orbiter Configuration, which is at present fixed in basic design. Several areas of concern have recently been noted from analysis of experimental data obtained in the numerous tests in various facilities, which are: the existence of regions of nonlinear aerodynamic characteristics significant enough to cause concern to control designers and, in some cases, disagreement between data obtained in the various facilities across the country.

Therefore, the Langley Research Center, in cooperation with Johnson Space Center and Rockwell International, has undertaken an experimental program to determine in detail the aerodynamic characteristics of a model of the Space Shuttle Orbiter. Attention will be given to conditions which have in past investigations shown regions of nonlinearity, since detailed definitions in these regions are particularly important in the development of longitudinal and lateral control characteristics to be used in the vehicle control logic. In addition, in order to minimize the effects of configuration differences which may contribute to uncertainties, a single model will be tested in the following facilities:

Langley Research Center

8 Ft. Transonic Pressure Tunnel Low Turbulence Pressure Tunnel Unitary Plan Wind Tunnels No. 1 and 2

Ames Research Center

12 Ft. Transonic Pressure Tunnel

Calspan

8 Ft. Variable Density Transonic Tunnel

INTRODUCTION (Concluded)

LTV, Inc.

4 x 4 Ft. Supersonic Wind Tunnel

The model was designed with remotely controlled elevons so that pitch and roll control effectiveness could be defined in small control increments over a wide range of control settings. A large data base of aerodynamic characteristics will be determined in continuous flow lower Reynolds number facilities. Non-linearities or other possible problem areas that appear in these low Reynolds number tests will be investigated in facilities which are capable of higher Reynolds numbers. At the conclusion of the overall program, aerodynamic data will be available in the Mach range from 0.25 to 4.6 on a single model and in a wide range of Reynolds numbers to give a high degree of confidence in the data, and extrapolation to full scale conditions.

Purpose of this report is to present aerodynamic characteristics obtained in the Langley Unitary Plan Wind Tunnel Test Section No. 1 at Mach numbers of 1.5 and 2.0 over an angle of attack range from -2° to 20° . Tests were conducted at constant sideslip angles of 0° and $\pm 2^{\circ}$ and over a sideslip range of -6° to 8° at selected angles of attack.

NOMENCLATURE General

. EXMBOT	PLOT SYMBOL	DEFINITION
a		speed of sound; m/sec, ft/sec
$C_{\mathbf{p}}$	CP	pressure coefficient; $(p_1 - p_{\omega})/q$
М	MACH	Mach number; V/a
p		pressure; N/m ² , psf
ā	Q(NSM) Q(PSF)	dynamic pressure; $1/2\rho V^2$, N/m^2 , psf
rn/l	rn/l	unit Reynolds number; per m, per ft
v		velocity; m/sec, ft/sec
α	ALPHA	angle of attack, degrees
β	BETA	angle of sideslip, degrees
ψ	PSI	angle of yaw, degrees
φ	PHI	angle of roll, degrees
ρ		mass density; kg/m3, slugs/ft3
	<u>R</u>	eference & C.G. Definitions
Ab .		base area; m ² , ft ²
ь	EREF	wing span or reference span; m, ft
c.g.		center of gravity
$t_{ m REF}$	LREF	reference length or wing mean serodynamic chord; m, ft
S	SREF	wing area or reference area; m ² , ft ²
	MRP	moment reference point
	XMRP	moment reference point on X axis
	YMRP	moment reference point on Y axis
	ZMRP	moment reference point on Z axis
SUBSCRIP b 1 s t	<u>rs</u>	base local static conditions total conditions free stream

NCMENCLATURE (Continued)

Body-Axis System

SYMBOL	PLOT SYMBOL	DEFINITION
$\mathbf{c}^{\mathbf{M}}$	CN .	normal-force coefficient; normal force qS
$\mathbf{c}_{\mathbf{A}}$	CA	axial-force coefficient; axial force
$\mathtt{c}_{\mathtt{Y}}$	CA	side-force coefficient; side force qS
c _{Ab}	CAB	base-force coefficient; base force qS -A _b (p_b - p_{ω})/ qS
$\mathbf{c}_{\mathtt{A}_{\mathbf{f}}}$	CAF	forebody axial force coefficient, c_{A} - c_{Ab}
c _m	CIM	pitching-moment coefficient; pitching moment qSL_{REF}
c_n	CYN	yawing-moment coefficient; <u>yawing moment</u> qSb
c į	CBL	rolling-moment coefficient; rolling moment
		Stability-Axis System
$\mathbf{c}_{\mathbf{L}}$	CL	lift coefficient; lift q5
$\mathbf{c}_{\mathbf{D}}$	CD	drag coefficient; drag
$\mathbf{c}_{\mathrm{D_b}}$	CDB	base-drag coefficient; base drag
$\mathbf{c}_{\mathbf{D_{f'}}}$	CDF	forebody drag coefficient; $c_D - c_{D_b}$
$\mathbf{c}_{\mathbf{Y}}$	СÄ	side-force coefficient; side force qS
c _m	CIM	pitching-moment coefficient; $rac{ ext{pitching moment}}{ ext{qS}} I_{ ext{REF}}$
$\mathbf{c_n}$	CLN	yawing-moment coefficient; Yawing moment qSb
c į	CSL	rolling-moment coefficient; rolling moment
r/p	L/D	lift-to-drag ratio; $c_{\mathrm{I}}/c_{\mathrm{D}}$
$\mathtt{L}/\mathtt{D}_{\mathbf{f}}$	L/DF	lift to forebody drag ratio; $c_{ m I}/c_{ m Df}$

NOMENCLATURE (Continued) Additions to Nomenclature

	PLOT	
SYMBOL	SYMBOL	DEFINITION
δ _{a.}	AILRON	aileron, total aileron deflection angle, degrees, (left aileron-right aileron)/2
δ _e	ELEVON	elevon, surface deflection angle, positive deflection trailing edge down, (left aileron + right aileron)/2
$\mathtt{c}^{\mathtt{A}^{\Omega}}$	CA	axial-force coefficient unadjusted for base or sting cavity pressures
$\mathtt{c}_{\mathtt{A}_{\mathtt{S}_{\mathtt{C}}}}$	CAC	sting cavity axial-force coefficient
c _e		elevon mean aerodynamic chord, in.
Se		elevon planform area, ft
$\delta_{ m SB}$	SPDBRK	speed brake deflection angle, degrees
$\delta_{ extbf{r}}$	RUDDER	rudder deflection angle, degrees
δ_{BF}	BDFLAP	bodyflap deflection angle, degrees
X _{cp} /L _B	XCP/L	normal force center of pressure, percent reference length
$^{\delta_{\mathbf{e}_{\mathrm{L}}}}$	elev-l	left elevon surface deflection angle, positive deflection trailing edge down, degrees
δ _e R	elev-r	right elevon surface deflection angle, positive deflection trailing edge down, degrees
ΔC _L	DLTCL	incremental lift force coefficient due to a change from baseline condition
ΔCN	DLÆCN	incremental normal force coefficient due to a change from baseline condition
ΔCA	DLECA	incremental axial force coefficient due to a change from baseline condition
ΣΔCD	DLTCD	incremental drag force coefficient due to a change from baseline condition
A 11	GRITNO	grit number associated with boundary layer transition strip (see page 35)

NOMENCLATURE (Concluded)

	PLOT	•
SYMBOL	SYMBOL	DEFINITION
ΔC_{m}	DLTCLM	incremental pitching moment coefficient due to a change from baseline condition
ΔCy	DLTCY	incremental sideforce coefficient due to a change from baseline condition
ΔCn	DLTCYN	incremental yawing moment coefficient due to a change from baseline condition
ΔC2	DLTCBL	incremental rolling moment coefficient due to a change from baseline condition
$c_{\lambda^{Q^{a}}}$	DCYDA	side force coefficient derivative as a function of aileron deflection
$c_{n_{\delta_a}}$	DCYNDA	yawing moment coefficient derivative as a function of aileron deflection
c _{rs}	DCBLDA	rolling moment coefficient as a function of aileron deflection
$c_{m_{\delta_e}}$	DCLMDE	pitching moment coefficient as a derivative of elevon deflection
$^{ ext{CL}}_{\delta_{\mathbf{e}}}$	DCLDE	lift coefficient as a derivative of elevon deflection
^{CS} ⁵e	DCDDE	drag coefficient as a derivative of elevon deflection
A _{sc}		sting cavity area, m2, ft2
£B		body length, m, ft.
cĀ [₿]	DCYDB	derivative of side force coefficient with respect to beta, 1/deg.
Ċ _{ng} C _{kg}	DCYNDB	derivative of yawing moment coefficient with respect to beta, 1/deg.
C#β	DCLDB	derivative of rolling moment coefficient with respect to beta, 1/deg.

TEST CONFIGURATIONS INVESTIGATED

The test model was a 0.015-scale model of the Space Shuttle Orbiter (figures 2a-2c). The model was constructed at the Langley Research Center using the nose section forward of full-scale fuselage station 672.8, the vertical tail and OMS pods from an existing Rockwell model 44-0. The remainder of the model, the wings, elevons, and body were constructed from Rockwell-furnished line details. The elevon position was determined by high resolution potentiometers mounted on the pivot axis of the elevons, thus giving the true position of the elevon under load at all times. The accuracy of the elevon position is the read-out accuracy of the potentiometer, which was determined to be within 0.2 degrees.

The model configuration is summarized as follows:

Orbiter - 140A/B/C = B_{26} C_{9} E_{43} F_{8} M_{16} N_{28} R_{5} V_{8} W

Component	<u>Definition</u>
^B 26	Fuselage per Rockwell Lines VL70-000140A VL70-000140B (Model SS-A00147)
c ₉	Canopy per Rockwell Lines VL70-000140A and VL70-000143B (Model SS-A00147)
E43	Slotted version (6-inch) of E26 elevons per Rockwell VL70-000145 (Model drawing SS-A00147)
F8	Body flap per Rockwell Lines VL70-000145 (Model drawing SS-A00147)
^M 16	OMS/RCS pods per Rockwell Lines VL70-0084010 (Model drawing SS-A00147)
N28	OMS engine nozzle per Rockwell Lines VL70- 000145 (Model drawing SS-A00147)

TEST CONFIGURATIONS INVESTIGATED (Concluded)

Component	<u>Definition</u>
R ₅	Rudder per Rockwell Lines VL70-000146A (Model drawing SS-A00148)
v ₈	Vertical tail per Rockwell Lines VL70-000146A (Model drawing SS-A00148)
¥	Wing per Rockwell V70-30-906-01 (Basic control drawing)

A complete description of model dimensional data is given in table III.

TEST FACILITY DESCRIPTION

The NASA LaRC 4 foot Unitary Plan Wind Tunnel (UPWT) is a closed-circuit, continuous flow, variable density facility. The test section is 4 feet by 4 feet by 7 feet long.

Two tunnel legs are available for supersonic testing in the Mach number ranges 1.47 to 2.86 (Leg No. 1) and 2.29 to 4.63 (Leg No. 2). All of these tests were made in Leg No. 1. An asymmetric, sliding block nozzle position and total pressure setting provide the test Mach numbers at a specified Reynolds number. Reynolds number can be varied from 0.76 to 7.78 million per foot. Available stagnation pressure variation is 4.0 to 142. psis. Dynamic pressure variation is 95. to 1260. psf with normal operating stagnation temperature about 150°F in Mach modes 2 or 3 and about 175°F in Mach mode 4. The tunnel is equipped with a dry air supply, an evacuating system, and a cooling system. The facility power is approximately 83,000 horsepower.

Model mounting provisions consist of various sting arrangements, including axial (longitudinal), lateral (independent pitch and yaw), and roll movement with side wall support. A Schlieren system and oil flow visualization equipment are available. Data are recorded at the tunnel and reduced off-line at the Langley Computer Center. The tunnel is used for force and moment, pressure, and dynamic stability tests.

Hot and cold jet effects and heat transfer have been studied in the UPWT.

TEST PROCEDURES

The tunnel conditions existing during the test are summarized in Table I, and the configurations tested are shown in Table II. The model was sting supported, and the aerodynamic forces and moments were measured by an internally mounted six-component strain gage balance. In an attempt to insure turbulent flow over the model, strips of carborundum grit were applied to the wing, vertical tail, and nose as shown in Figure 2. Model angle of attack was varied from about -2° to 20° for angles of sideslip of 0° and ±2°. Sideslip angles were varied from -6° to 8° at angles of attack of 0°, 6°, 10°, 14°, and 21°. Angles of attack and sideslip have been corrected for the effects of sting deflection under load. Runs were made either by setting the elevons at a fixed angle of attack or by fixing the angle of attack and varying the elevon angle. No correction due to load has been applied to elevon angle since total torsional bending of the elevon has been determined to be negligible.

DATA REDUCTION

The LaRC UT 27-100 six-component strain gage balance was used to measure model forces and moments. All final data were presented along a set of body and stability axes (figure 1) through the nominal center of gravity located at F. S. 1076.7 and FRL 375.0. Drag data presented represent gross drag in that no corrections to free-stream conditions in the base regions have been made. Model data were converted to standard NASA coefficients using the following constants:

Reference Area SREF = 0.605 ft.²

Reference Length LREF = 7.122 in.

Reference Span BREF = 14.05 in.

Total base area excluding sting cavity $A_b = 0.0615 \text{ ft.}^2$

Sting cavity area $A_{sc} = 0.03409 \text{ ft.}^2$

LARC UPWF 1118			DATE : 7-17-75
	TEST CO	NDITIONS	
	<u> </u>		
ACH NUMBER	REYNOLDS NUMBER	DYNAMIC PRESSURE	STAGNATION TEMPERATU
AUN NUMBER	(per foot)	(pounds/sq. inch)	(degrees Fahrenheit)
1.5	2.00 X 10 ⁶	3.30	150°
2.0	2.00 x 10 ⁶	3.30	150°
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	7.1.1.1.1.1.1.1.1.1.1.1.1.1.1.1.1.1.1.1		
ANCE UTILIZED:	LARC UT 27-100		
NIOC OTTCIALD.			COEFFICIENT
	CAPACITY:	ACCURACY:	TOLERANCE:
NF	600 1ъ.	<u>+</u> 3 lb.	
SF	300 lb.	<u>+</u> 1.50 lb.	
AF	100 lb.	+ 0.500 lb.	
PM	800 in.—lb.	+ 4.00 inlb.	_
RM -	400 in1b.	\pm 2.00 in.—lb.	
YM	600 in.—1b.	<u>+</u> 3.00 in.—1b.	t
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MENTS:			
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DATA SET CONFIG		SCHD. PARAMETERS/VALUES									NO.	JMBERS							
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RJ'+001	Easeline	A	٥°	0°	55°	-10	0°	50)							3	36	<u> </u>	<u> </u>
RJ4002			IT	T	IT	-5°									<u> </u>		58		
RJ4033						0°										1	34		<u> </u>
RJ 4004						10										2	35		
RJ4CC5			3°			-10										4	37		
RJ4006		11				O°										5	38		
RJ4007	·			\prod		30		П								6	39		
RJ4008			_2°	\Box		-10		Î								9	42		
RJ/1009						0°										-8	41		
RJ4010		Ţ		Ţ		10			,							7	40		
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TABLE II (Cont td)

DATA SET	60	SCHD. PARAMETERS/VALUES											110	MACH NUMBERS					
IDENTIFIER CONFIGURATION			β	505	SSB	Se		GRT.		7	<u> </u>			NO. OF RUNS	1.5	2.0		Т	T
3J4001	Faseline	А	o°			10		50							3	36			1
SJ4002		T	IT	IT	IT	-5°	T	T								58			1
sJ4003						٥°									1	34			
SJ4004						10									2	35			
sJ4005			2°			-10					1				14	37			Ī
sJ4006						0°									5	38			7
SJ4007	·	8	Ţ			10									6	39			
SJ4008			-2°	П		-10									9	42			
SJ4009			П			0°									8	41			1
SJ4010			Į.	I.		10		Ţ							7	40			
		-		_						-	<u> </u>	-	-				 		-
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		_									<u> </u>								-
7	- 			25		31		37		43		19	55		61		67		75
CT _I A, , &	(,P,S,F,),A,I,L,RO,N,E	LEY,	_ <u>L</u>	E,L,E	V,,F		EFFI			سيا	لبب				•	H.	ALP	H,A,	L

TABLE II (Cont : d)

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DATA SET	CONFIGURATION	SC	нD. β	Sar	SSB	50		GR.		EKS/V	ALUES	<u> </u>			NO. OF RUNS	1.5	2.0		T	T
RJ+011	Baseline	0	В			-10	. Here in 1822 w	50)							28	61		1	1
RJ4012		丁	T	T		0	T	T	_							29	62			
RJ4013						10										30	63			
RJ4014		۶°				-10										27	52			
RJ4015						0°										26	53			
RJ4016						10										25	54			
RJ4017		10°				-10	,									10	‡+ 3			1 5
RJ4019						5°		П									59		<u> </u>	
RJ4019						0°										11	44			
RJ4020	`					10	,									12	45]
RJ4J2l		14°				-10	<u>. </u>									22	48			_] `
RJ4022						0°									<u> </u>	23	47			
RJ4023						10	,									24	46			
RJ4024		51.4				-10	,									33	57		<u> </u>	
RJ\$\025						0°										32	56			
RJ4026	4	4	Ų	2	4	10	,								<u> </u>	31	55		<u> </u>	
	•																			
					74.							-	المراجع							
t 7	13 19			25		31		37		4:		49		55		61	. <u> </u>	67		75
C,N, , , , , , C	Α , , C,L,M, , C	BL_{i}	أحد	C,Y,N		լԵլ Է		C		'اب،	P.	\mathbf{L}_{Γ}	/D I	LEV	ON	MA.C		BET,		1.
α OR SCHEDU		° to	8°			C	DEFF	CEN	T5	_						יטו	AR 1)	IDVAI	K (2)	

TABLE II (Cont d)

TEST: UPW	T 1118 (LA63B)	J	-	DAT	A SE	r/Rui				DLLAT		SUMMARY	,	DATE	7-2	23–75			
DATA SET	CONFIGURATION	-	HD.							ERS/VAI	LUES			NO. OF RUNS			UMBERS	,	
IDENTIFIER		ļα		SBE		_		GRI						RUNS		2.0	 	 	4
5J4011	Baseline	0	В	0°	55°	-10	0°	50		_ _	_	_		<u> </u>	28	61	<u> </u>	<u> </u>	1
SJ4012		\coprod				0		<u> </u>							29	62	<u> </u>		
SJ4013						10		Ш	<u> </u>						30	63			_
SJ4014		6°				-10									27	52			
SJ4015						C°									26	53			
sJ4016						10									25	54			ŀ
8J4017		10°				-10									10	43			-
SJ4018						5°										59			
SJ4019		П				0°		П	1	1					11	1414			_
SJ4020						10		П							12	45			
SJ4021		14°				- <u>i</u> 0	,								22	48			7
SJ4022						O°.									23	47			1
sJ4023		\prod				10	,								21;	46			1
SJ407.4		21 °	7			-10	,	\Box	╁		_				33	57			7
SJ1:025					_	O°	_		1		+				32	56			1
SJ4026			丁			10			1		1	 			31	55			7
			-₹	-					1		\dashv		- 						1
									1				_						1
7				?5		31		37		43		49	55		<u>51</u>		67		75
LPHA C	(,PS,F,) A,I,L,RONE,L	EV.	<u>- Ţ 1</u>	$E_L E_i$	VR					باب	سليدالسال	ببياب		<u> </u>					L
a OR SCHEDUI		to	٩¢				EFFI	CEN	\$	-	_				IDV	18 "	IDVAF	t (2)	NE

	r 1118 (LA63B)			DAT	A SE	r/RUI		مسينة المسيدات	OLLATIO		ARY	DATE					
DATA SET DENTIFIER	CONFIGURATION	SC a	нD. β	Sar	5.0	Se		GRIT	ERS/VALU	ES		NO. PUNS	1.5		UMBERS	T	T
RJ4027	Baseline	6°	-	0°	1	-10°	С	50					16		1	1	1
R74028				T		0°	T						17		1	1	1
RJ4529						10°				1			18				1
RJ4030		10				-10°							15	51			1
RJ4031						5°								60			1
RJ4032						0°							14	49			
RJ4033						10°							13	50			
RJ4034		14				-10°							21				
RJ4035			Ш			0°							20				
RJ4036			¥.			10°							19				
	· · · · · · · · · · · · · · · · · · ·																
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		_															
		11								<u> </u> -		<u> </u>			<u> · </u>	<u> </u>	
													11,7-11,000 to 10,000 to 1				إ
7	13 19			.S		31		37 C T	43	49	55		61 MAC	11	67 AT T	RON	7: [1
N C		BL		CYN,		C,Y	- 1-1-	CL	CD	<u> </u>	D, ELE	ON		11 AR 1)	السامسال	R (2)	L,
a or	β <u>c) δa = -</u>	5° to	10	٥,	····			, G. () I J		. 10.0		-	150	HH 11	IUVA		•

12

DATA SET		SC	HD.	8				PARAME	TERS/VAL	JES			NO.	,	MACH N	UMBERS	5
DENTIFIER	CONFIGURATION	α		SBF	SSB	Se		GRII					NO. OF RUNS		2.0		T
5J4027	Baseline	6°	0.6	0°		-10°	-	50						16			T
3J4028			П			0°								17			T
3J4029			П			10°							i	18			
J4030		10				-10°								15	51		
J4031						-5°									60		
J4032						0°								14	49		
J4033						10°								13	50		1
534034		14				–10°								21		1	
3J4035						0°								20		1	1
J4036			+		+	10°								19			
			·														
																1	
	- W																
																1	
7	13 19			25		31		37	43	49		55		61		67	7
PH,A, Q	(,P,S,F,) B,E,T,A, , E,	L,EV,	$-L_1$	EL,B,	7. — ₽	C ₁ A ₁ C	1-1-1	IC A.B.				1		M_iA_i Q i	H	A,IL,	RO.N
αOR	a) Ca =					co	EFFIC	ENTS						100	AR - 11	IDVA	R (2)

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TABLE III. MODEL DIMENSIONAL DATA

MODEL COMPONENT : BODY B26		
GENERAL DESCRIPTION: Configuration	140A/B Orbiter	Fuselage
NOTE: B26 is identical to B24 except	underside of fus	selage has been
refaired to accept W		
MODEL SCALE: 0.015 MODEL D	RAWING: SS-AOO	147, RELEASE 12
DRAWING NUMBER: VL70-000143B, -0002	00, 000205, -0	006089,
•		
DIMENSIONS :	FULL SCALE	MODEL SCALE
* Length (OML: Fwd Sta. Xo=235)-Ir		19.400
 Length(IML: Fwd Sta. X₀=238)-Ir Max Width (@ X = 1528.3) - In. 	1. 1290.3 264.0	19.355 3.960
Max Depth (@ X _o = 1464) - In.	250.0	3.750
Fineness Ratio		
Area - Ft ²		
Max. Cross-Sectional	340.88	0.077
Planform	<u> </u>	
Wetted		
Base		•

TABLE III-Continued MODEL DIMENSIONAL DATA

MODEL COMPONENT : CANOPY - C9	·	···
GENERAL DESCRIPTION: Configuration 3	A, Canopy used	with Fuselage
B26.		
		•
MODEL SCALE: 0.015 MODEL DRAWIN	G: SS-A00147	, RELEASE 12
DRAWING NUMBER: VL70-000143A	/B	
	•	•
DIMENSIONS :	FULL SCALE	MODEL SCALE
Length $(X_0 = 434.643 \text{ to } 587)$	143.357	2.150
Max Width (@ X _o = 513.127)	152.412	2.286
Max Depth (@ X ₀ = 485.0)	25.000	0.375
Fineness Ratio		
Arec		
Max. Cross-Sectional	**************************************	
Planform		
Wetted	•	•
Base		

TABLE III—Continued MODEL DIMENSIONAL DATA

MODEL	COMPONENT SLOTTED ELEVON (6-	inch GAP) - E45	3
GENER	RAL DESCRIPTION Configuration 140A	/B Orbiter elev	on.
NOTE:	E43 is a slotted version of E26.	Data are for o	one side.
		•	-
MODEL	SCALE: 0.015 MODEL DRAWIN	IG: SS-A00148	
DRAWI	NG NUMBER	089, VL006092	
× .	•		·
•			•
DIMEN	SIONS	FULL SCALE	MODEL SCALE
	Area - Ft ²	210.0	0.0473
	Span (equivalent) - In.	349.2	5.238
	lnb'd equivalent chord - In.	118.004	1.770
	Outb'd equivalent chord/ total	55.192	0.828
	surface chord Ratio movable surface chord/ total surface chord		•
	At Inb'd equiv. chord	0.2096	0.2096
	At Outb'd equiv. chord	0,4004	0.4004
	Sweep Back Angles, degrees		
5 57	Leading Edge	0.00	0.00
	Trailing Edge	-10.056	-10.056
•	Hingeline	0.00	0.00
	Area Moment (Narmal to hinge line)	1587.25	0.00536
	Mean Aerodynamic Chord (c), in.	90.7	1.3605



TABLE III-Continued MODEL DIMENSIONAL DATA

MODEL COMPONENT : BODY FLAP -F8		
GENERAL DESCRIPTION : Configuration	140A/B Orbiter	Body Flap.
	ated at $X_0 = 152$	
MODEL SCALE: 0.015 MODEL DRAWING	SS-A00147, RE	LEASE 12
DRAWING NUMBER: VL-000140A, V	VL70-000145	
•	:	
DIMENSIONS:	FULL SCALE	. MODEL SCALE
Length $(X_0 = 1520 \text{ To } X_0 = 1613)$	93.000	1.395
Max Width (In.)	262.00	3.930
Max Depth $(X_0 = 1520)$ - In.	23.000	0.345
Fineness Ratio		
Area - Ft ²		
Max. Cross-Sectional		
Planform	150.525	0.0339
Wetted		Storage of the storag
Base	41.84722	0.00941

TABLE III-Continued MODEL DIMENSIONAL DATA

MODEL COMPONENT : OMS	Pod (M16)			•
GENERAL DESCRIPTION :	Configuration	140D	Orbiter OMS	Pod
			· · · · · · · · · · · · · · · · · · ·	· · · · · · · · · · · · · · · · · · ·
			•	
MODEL SCALE: 0.015	MODEL DRAWING	NO:	SS-A00147	
DRAWING NUMBER:	VL70-000140D VL70-008410			
			٠	
DIMENSIONS:		FUL	L SCALE	MODEL SCALE
Length (OMS Fwd Sta	a X _o =1310.5) <u>-</u> I	n	258.5	3.878
Max Width (@ X _o =	1511) - In.	-	136.8	2.052
Max Depth (@ X _O =	1511) - In.		74.7	1.121
Fineness Ratio	·	***	2.484	2.484
Area - Ft. ²	•		-	
Max. Cross-Se	ectional		58.864	0.0132
Planform		***********		•
Wetted				
Base .		-		

TABLE III - Continued

- MODEL DIMENSIONAL DATA

MODEL COMPONENT: OMS NOZZLES - N28	
GENERAL DESCRIPTION: Configuration 140A/	B Orbiter OMS Nozzles
MODEL SCALE: 0.015 MODEL DRAWING	SS-000147 RELEASE 5 (Contour)
DRAWING NUMBER: VL70-000145, (location)	
DIMENSIONS:	FULL SCALE MODEL SCALE
MACH NUMBER	
Length- In.	
Gimbal Point to Exit Plane Throat to Exit Plane	
Diameter - In Exit Throat Inlet	
Area - ft ² Exit Throat	
Gimbal Point (Station) - In. Left Nozzle Xo Yo Zo	1518.0 22.770 -88.0 -1.320 490.2 7.353
Right Nozzle X Y Z	1518.0 22.770 +88.0 +1.320 492.0 7.380
Null Position - Deg. Left Nozzle Pitch Yaw Right Nozzle Pitch Yaw	15 ⁰ 49' 15 ⁰ 49' 12 ⁰ 17' 12 ⁰ 17' 15 ⁰ 49' 15 ⁰ 49' 12 ⁰ 17' 12 ⁰ 17'

TABLE III-Continued . MODEL DIMENSIONAL DATA

MODEL COMPONENT RUDDER - R5		
GENERAL DESCRIPTION 2A, 3, 3A	, and 140A/B Con	figurations
MODEL SCALE: 0.015 MODE	EL DRAWING: SS-	A00148
DRAWING NUMBER VL70-000146A, VL70-00	00095, V170-0 0 01	39
DIMENSIONS	FULL SCALE	MODEL SCALE
*Area Ft ²	100.15	0.0225
Span (equivalent) - In.	201.0	3.015
Inb'd equivalent chord - In.	91.585	1,3738
Outh'd equivalent chord = In.	50.833	0.7625
Ratio movable surface chord/ total surface chord		
At Inb'd equiv. chord	0.400	0.400
At Outb'd equiv. chord	0,400	0.400
Sweep Back Angles, degrees	:	•
Leading Edge	34.83	• 34.83
Trailing Edge	26.25	26.25
Hingeline	34.83	34.83
Area Moment (Normal to hinge line)	610,92	0.002
" Many Association of the Observed To	73.2	1.098

TABLE III—Continued MODEL DIMENSIONAL DATA

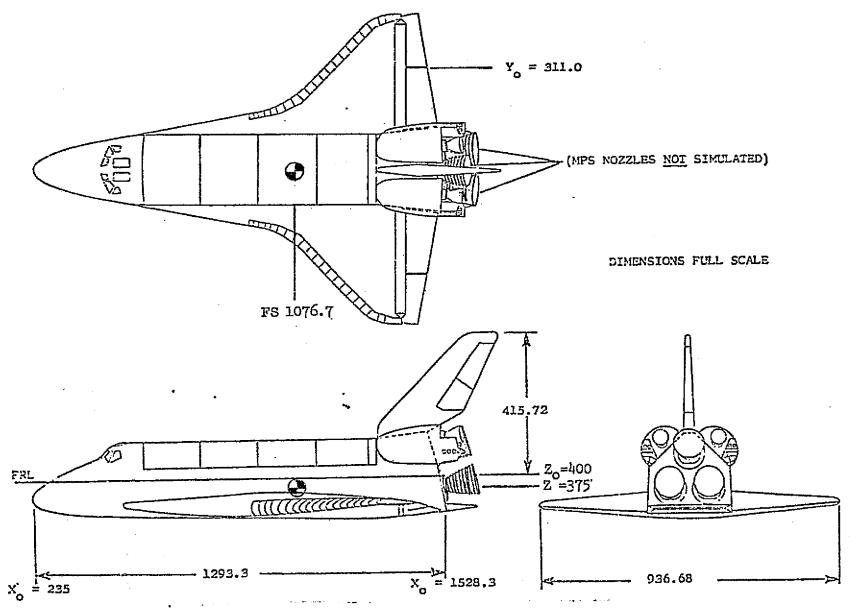
MODEL COMPONENT : VERTICAL - V8		
GENERAL DESCRIPTION: Configuration 140A	/B Orbiter Ve	ertical Tail
		• •
MODEL SCALE: 0.015 DRAWIN	IG NUMBER: SS	S-A00148,
DRAWING NUMBER: VL70~000146A	RE	LEASE 6
DIMENSIONS:	FULL SCALE	MODEL - SCALE
TOTAL DATA	,	
Area (Theo) - Ft ² Planform Span (Theo) - In. Aspect Ratio Rate of Taper Teper Ratio Sweep-Back Angles, Degrees. Leading Edge *Trailing Edge 0.25 Element Line Chords: Root (Theo) WP Tip (Theo) WP MAC Fus. Sta. of .25 MAC W.P. of .25 MAC B.L. of .25 MAC	413.253 315.720 1.675 0.507 0.404 45.000 26.2 41.130 268.500 108.470 199.808 1463.50 635.522 0.00	0.093 4.736 1.675 0.507 0.404 45.000 26.2 41.130 4.028 1.627 2.997 21.953 9.533 0.00
Airfoil Section Leading Wedge Angle - Deg. Trailing Wedge Angle - Deg. Leading Edge Radius	10.00 14.920 2.00	10.00 14.920 0.030 -
Void Area	13.17	0.030
Blanketed Area	0.00	0.00

TABLE III--Concluded

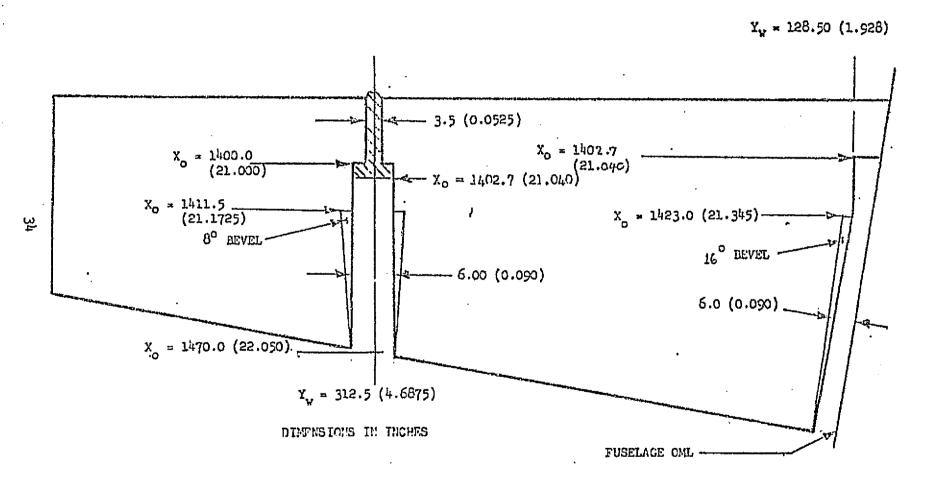
MODEL COMPONENT: WING-W					
GENERAL DESCRIPTION: Configuration 4					
• NOTE: Identical to Wil4	except airfoil t	hickness.			
Dihedral angle is along trailing edge of wing. MODEL SCALE: 0.015 MODEL DRAWING: SS-AG0148 DRAWING NUMBER: VL70-000140A -000200					
			DIMENSIONS:	FULL-SCALE	MODEL SCALE
			TOTAL DATA		
Area (Theo) Ft ² Planform Wetted	2690.00	0.605			
Span (equivalent) (Theo) In. Aspect Ratio Rate of Taper Taper Ratio	936.68 2.265 1.177 0.200	14.050 2.265 1.177 0.200			
Dihedral Angle, degrees Incidence Angle, degrees Aerodynamic Twist, degrees Toe-In Angle	3.500 0.500 +3.000	3.500 0.500 +3.000			
Cant Angle Sweep Back Angles, degrees Leading Edge Trailing Edge 0.25 Element Line	45.000 -10.056 35.209	45.000 -10.056 35.209			
Chords: Root (Wing Sta. 0.0) (Theo) B.P.O. Tip, (equivalent) (Theo) B.P. MAC Fus. Sta. of .25 MAC W.P. of .25 MAC B.L. of .25 MAC Airfoil Section	0. 689.24 137.85 474.81 1136.83 290.58 182.13	10.339 2.068 7.122 17.052 4.359 2.732			
Root Tip EXPOSED DATA	<u></u>				
Area Ft ² Span, (equivalent) (Theo) In. BP108 Aspect Ratio Taper Ratio Chords	1751.50 720.68 2,059 0,245	0.394 10.810 2.059 0.245			
Root BP108 Tip 1.00 b MAC Fus. Sta. of .25 MAC W.P. of .25 MAC	562.09 137.85 392.83 1185.98 294.30	8,431 2,058 5,892 17,790 4,415			
B.L. of .25 MAC	251.77	3.777			

Figure 1. - Axis Systems.

 $^{\omega}_{\omega}$

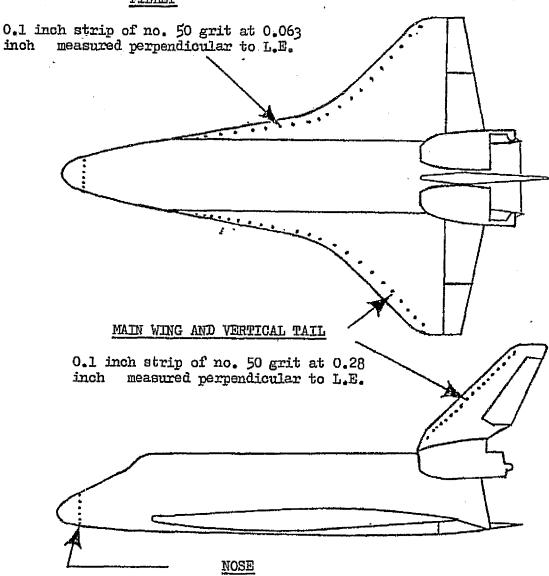


a. General Orbiter ConfigurationFigure 2. - Model Sketches.



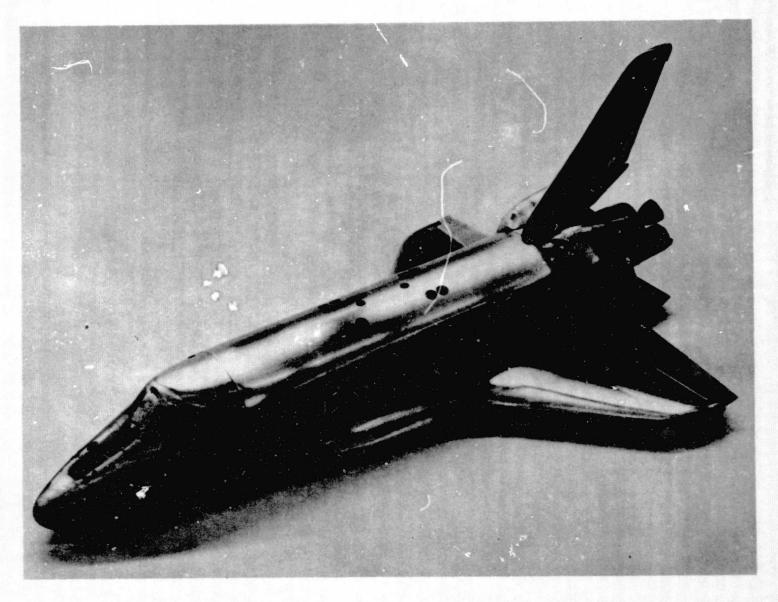
b. Slotted Elevon E43 (6-inch gap)
Figure 2. - Continued.

FILLET

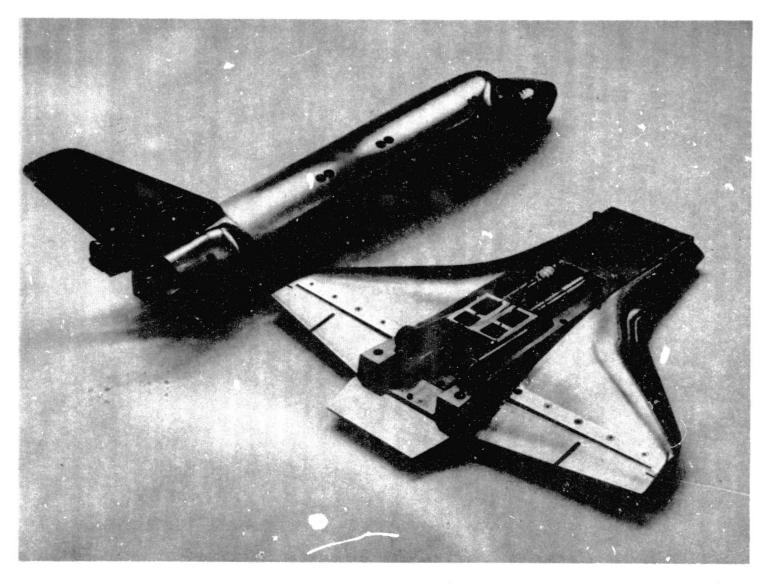


O.1 inch strip of no. 50 grit at 1.2 inch measured streamwise

c. Position of Transition Grit Used in Investigation Figure 2. - Concluded.



a. Orbiter Configuration, Front 3/4 View
 Figure 3. - Model Photographs



b. Orbiter Configuration, Rear 3/4 ViewFigure 3. - Concluded.

DATA FIGURES

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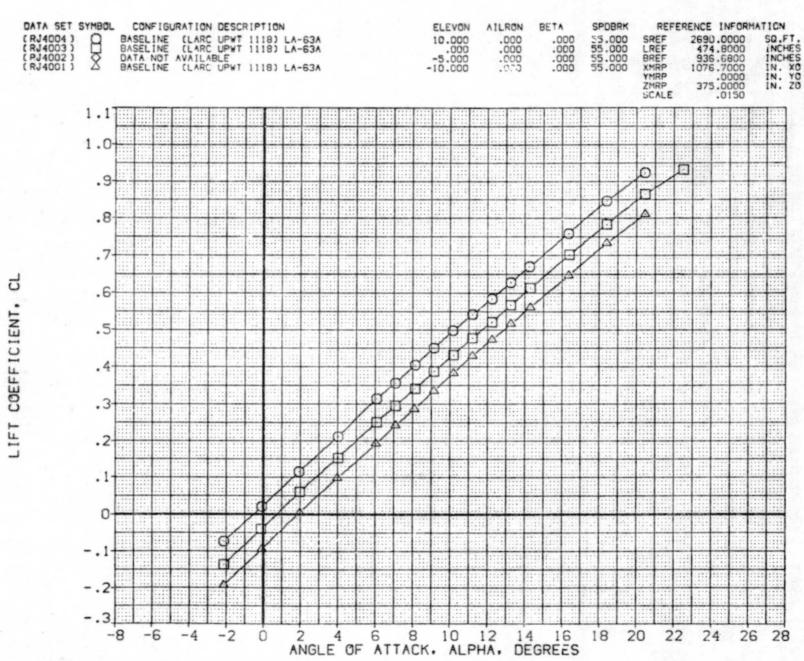


FIGURE 4. ELEVON EFFECTIVENESS AT BETA= 0 DEGREES

(A)MACH = 1.50

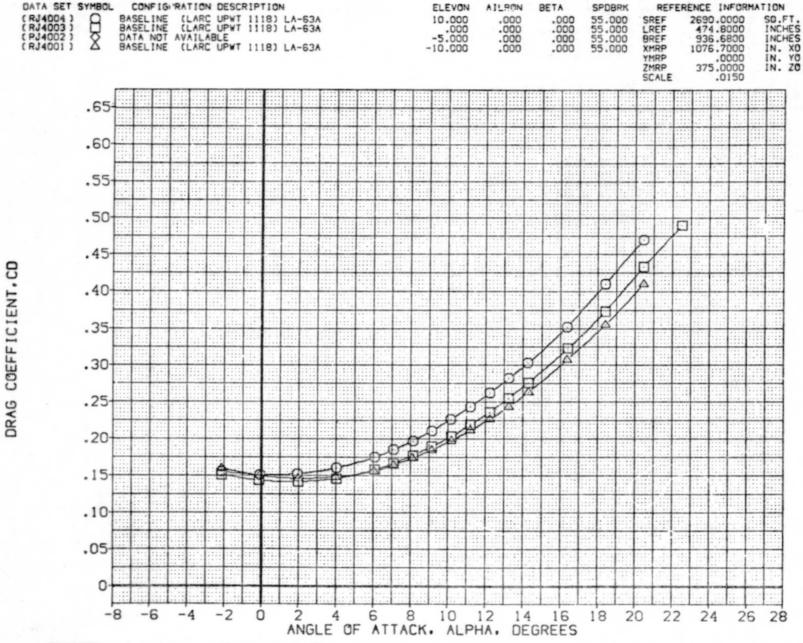


FIGURE 4. ELEVON EFFECTIVENESS AT BETA= 0 DEGREES
(A)MACH = 1.50

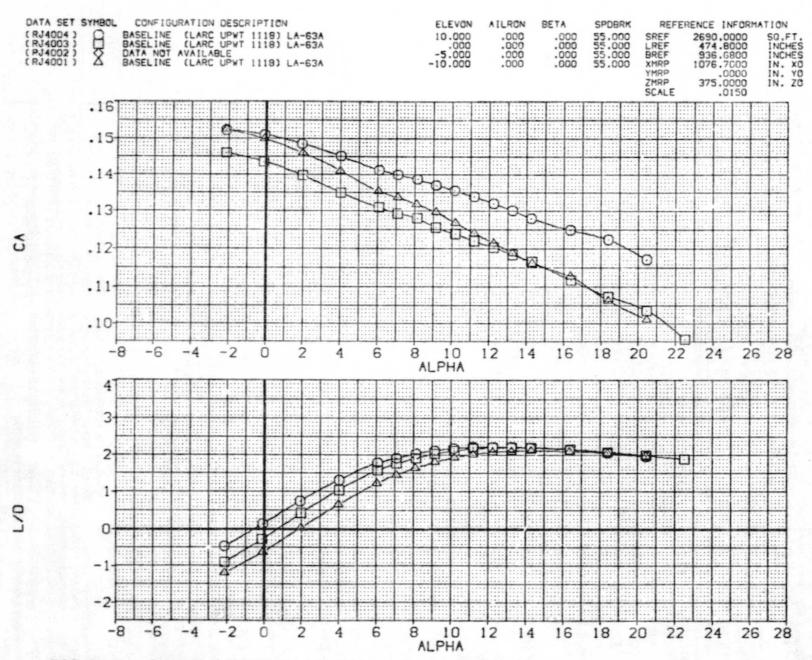
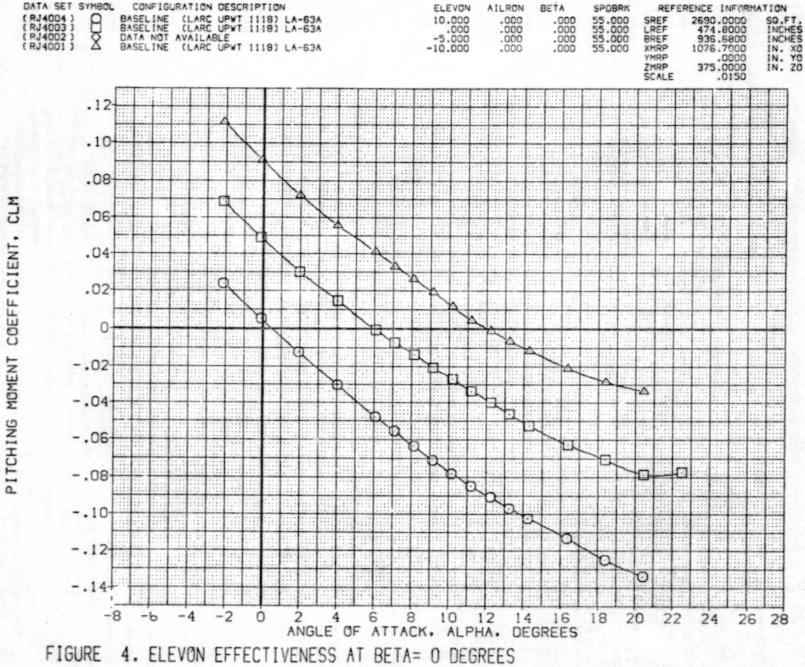


FIGURE 4. ELEVON EFFECTIVENESS AT BETA= 0 DEGREES
(A)MACH = 1.50



(A)MACH = 1.50

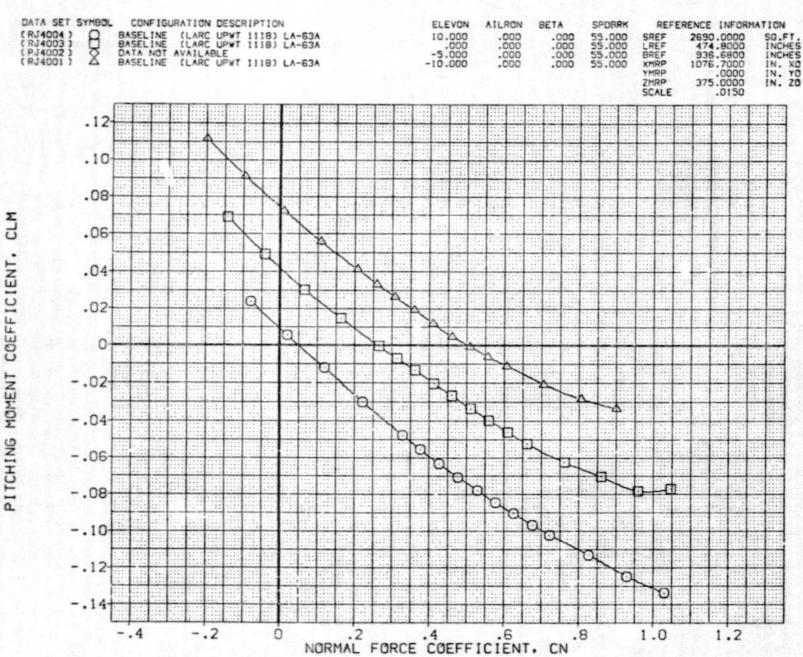


FIGURE 4. ELEVON EFFECTIVENESS AT BETA= 0 DEGREES

(A)MACH = 1.50

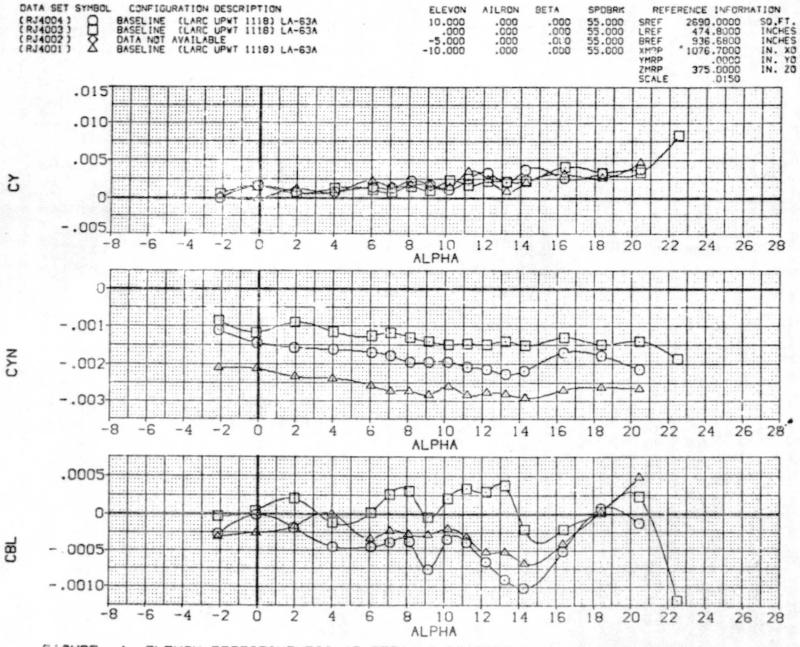


FIGURE 4. ELEVON EFFECTIVENESS AT BETA= 0 DEGREES

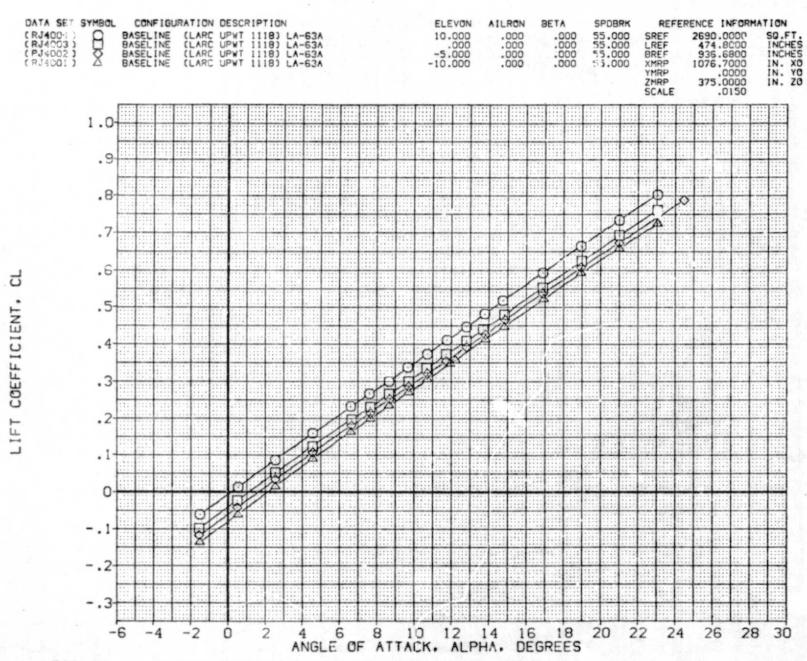


FIGURE 4. ELEVON EFFECTIVENESS AT BETA= 0 DEGREES

(B)MACH = 2.00

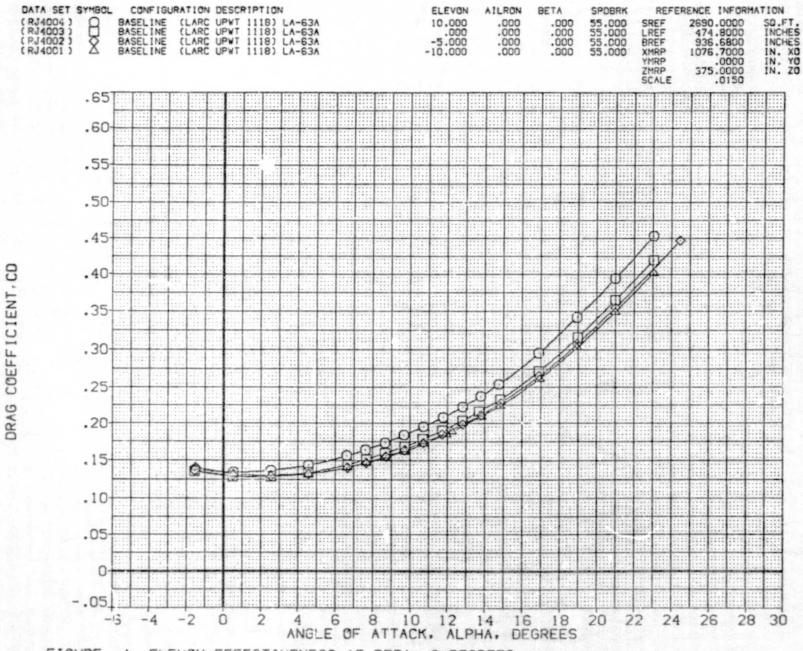


FIGURE 4. ELEVON EFFECTIVENESS AT BETA= 0 DEGREES
(B)MACH = 2.00

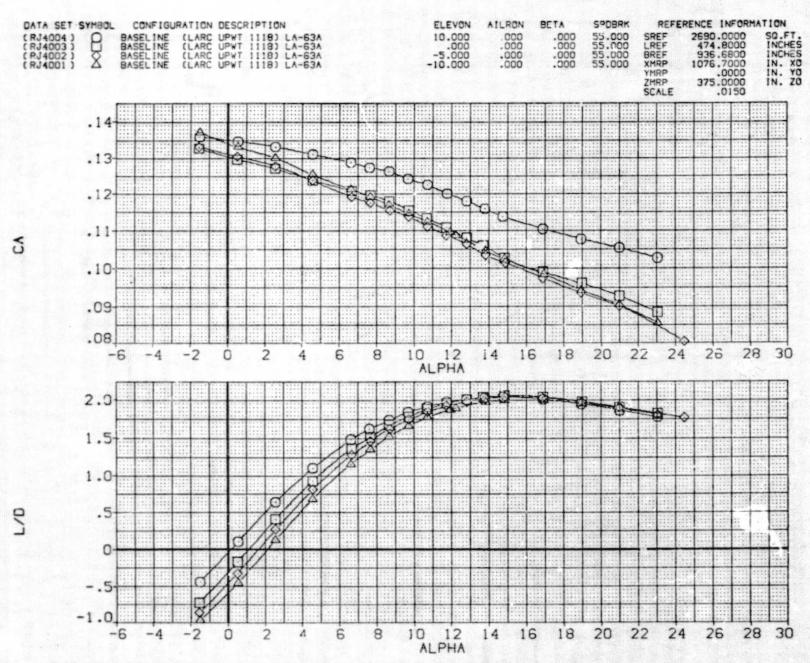


FIGURE 4. ELEVON EFFECTIVENESS AT BETA= 0 DEGREES
(B)MACH = 2.00

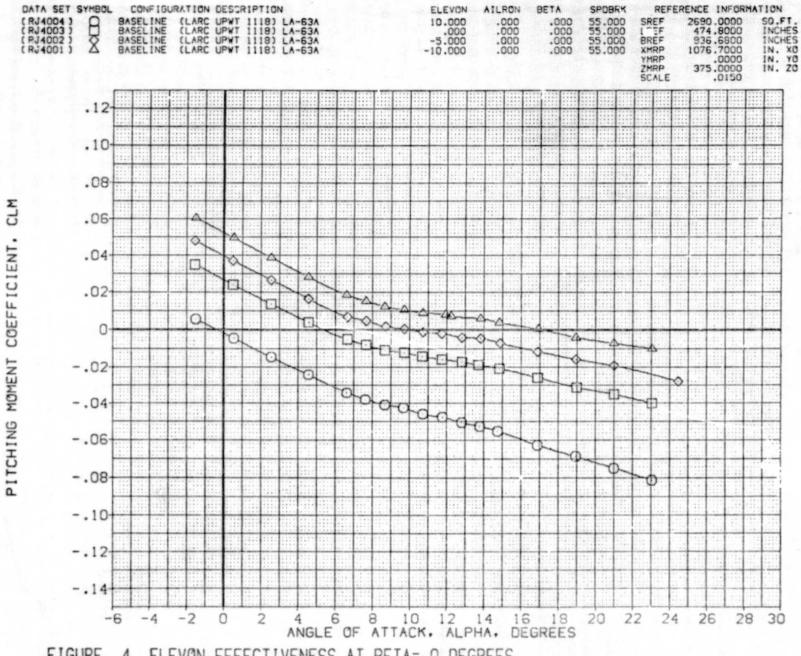


FIGURE 4. ELEVON EFFECTIVENESS AT BETA= 0 DEGREES
(B)MACH = 2.00

10

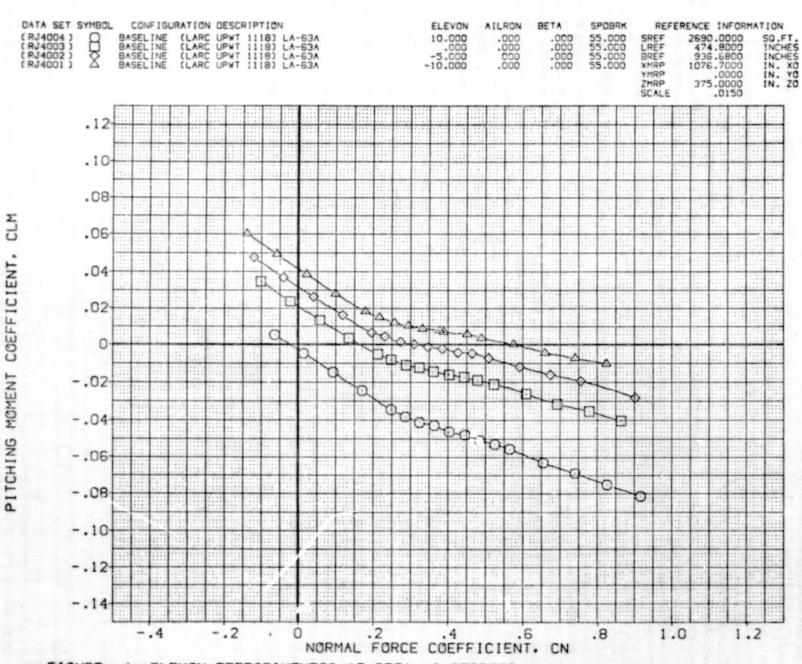


FIGURE 4. ELEVON EFFECTIVENESS AT BETA = 0 DEGREES
(B)MACH = 2.00

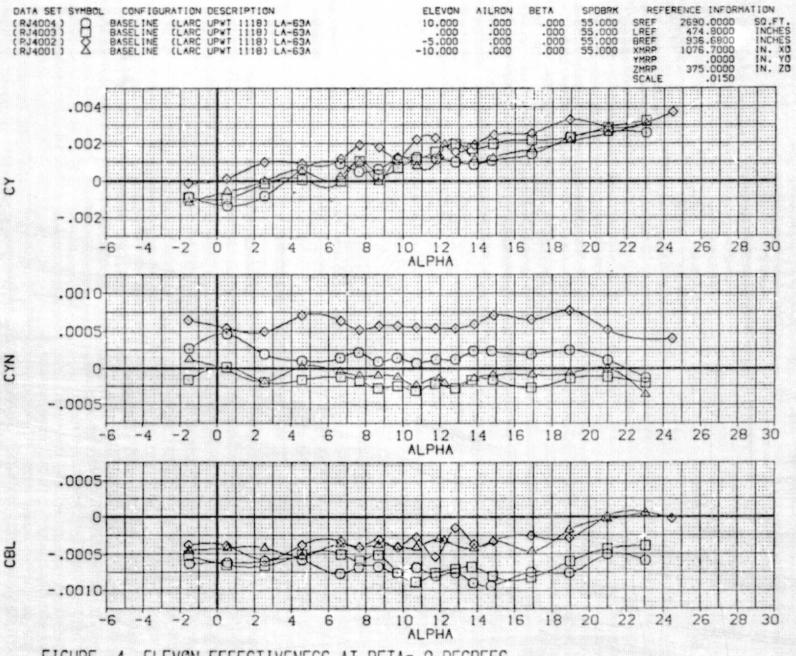
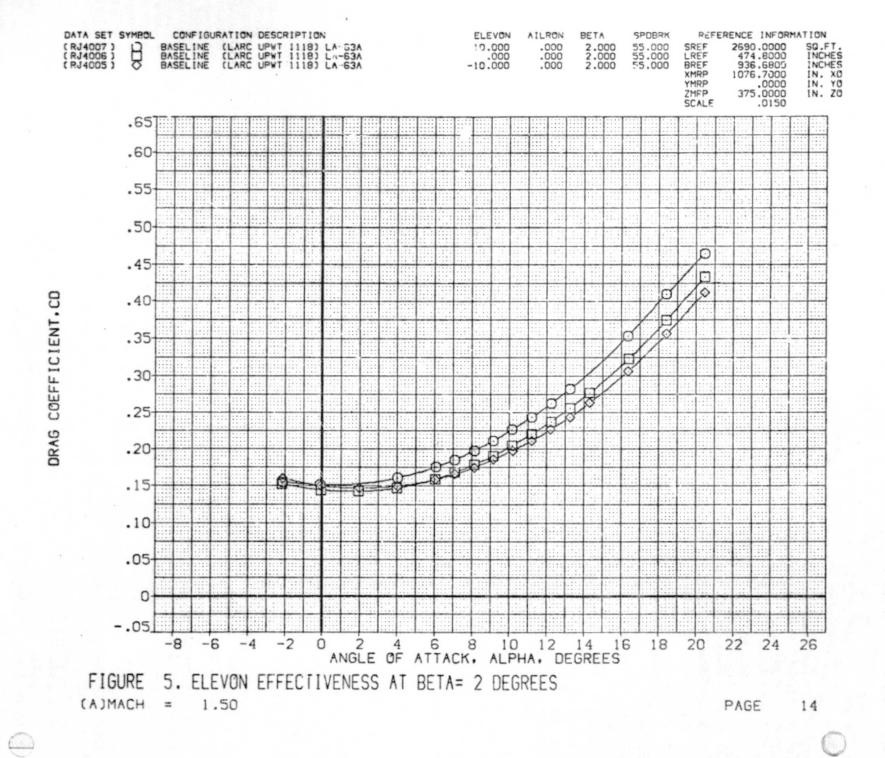


FIGURE 4. ELEVON EFFECTIVENESS AT BETA= 0 DEGREES
(B)MACH = 2.00

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ANGLE OF ATTACK, ALPHA, DEGREES

FIGURE 5. ELEVON EFFECTIVENESS AT BETA= 2 DEGREES



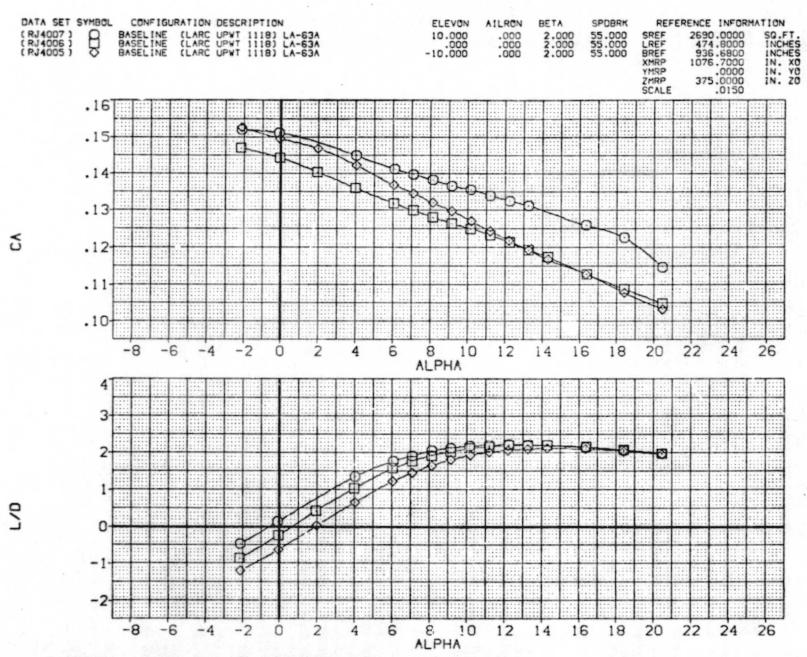
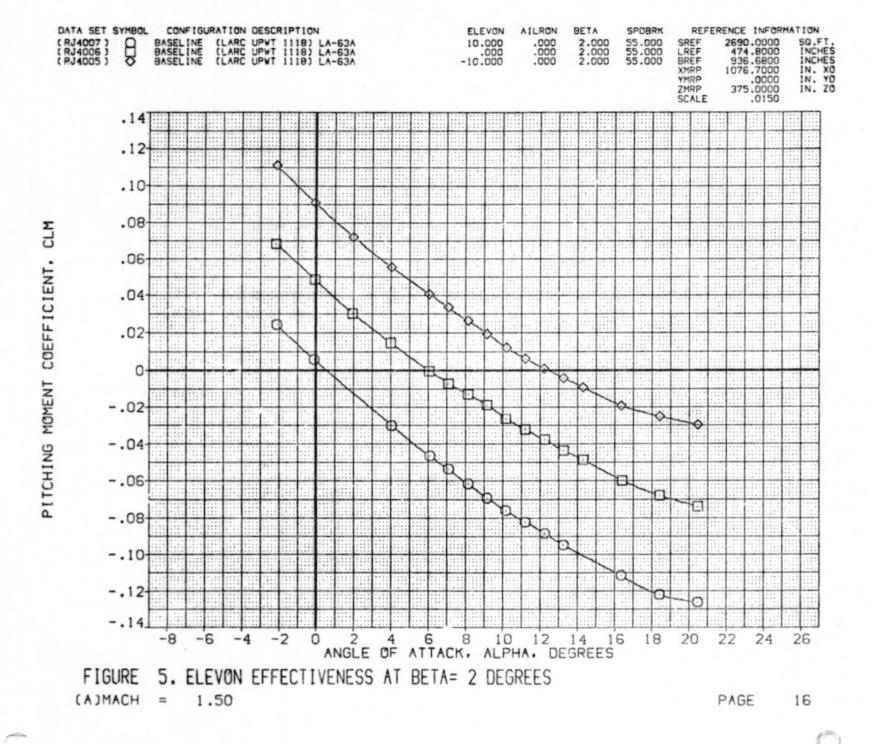


FIGURE 5. ELEVON EFFECTIVENESS AT BETA= 2 DEGREES
(A)MACH = 1.50



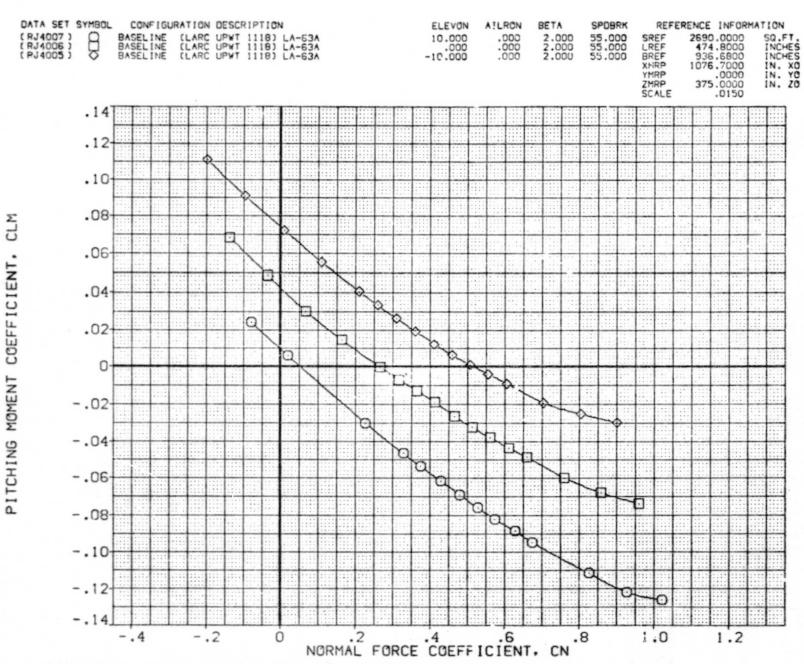
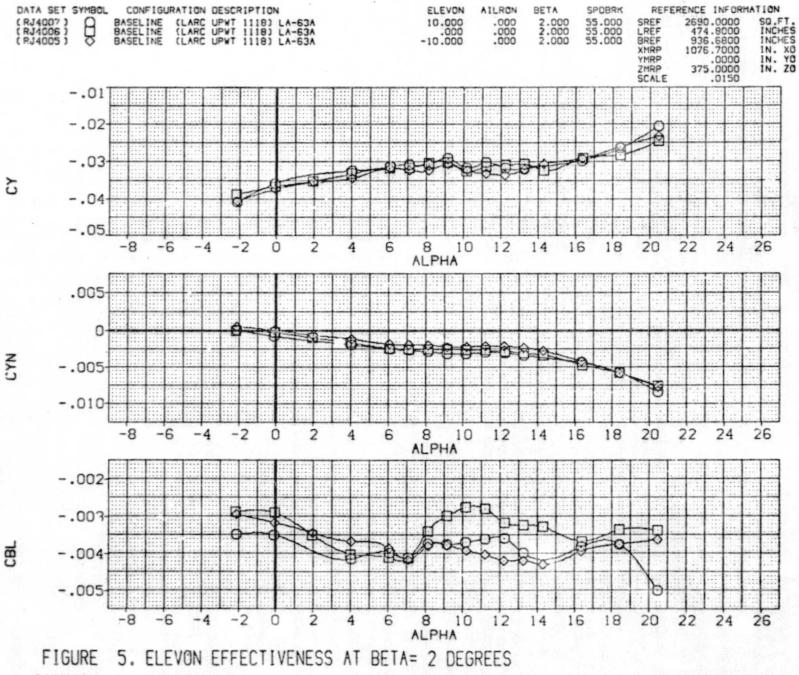
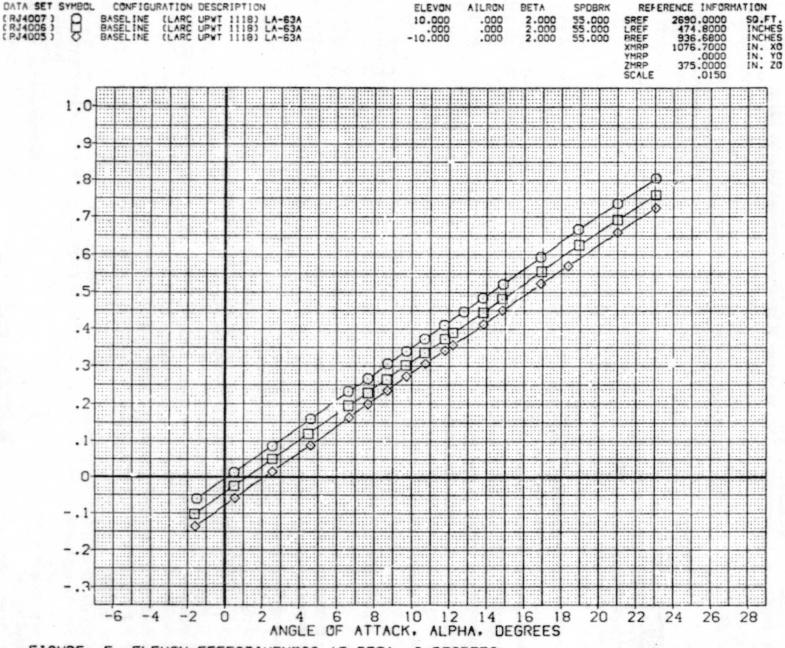


FIGURE 5. ELEVON EFFECTIVENESS AT BETA= 2 DEGREES
(A)MACH = 1.50

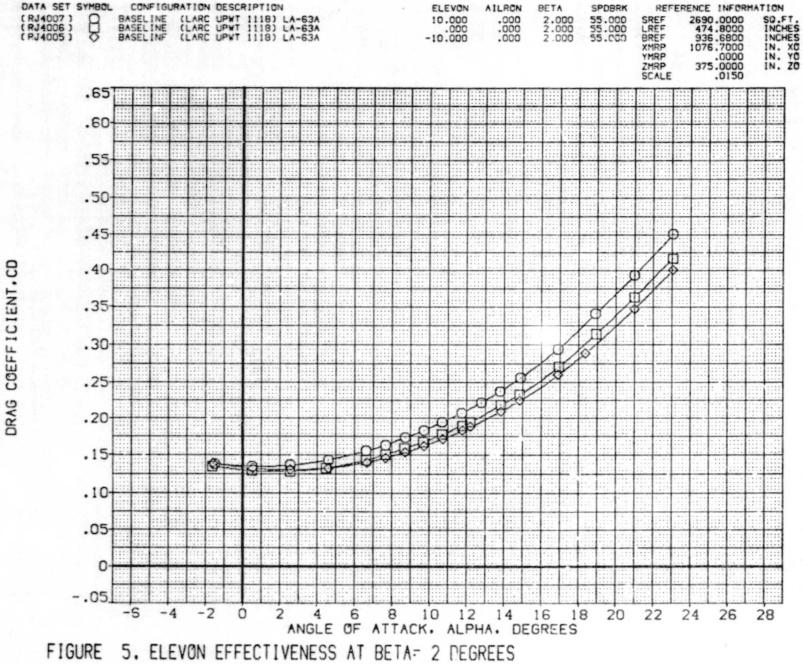


(A)MACH = 1.50



5. ELEVON EFFECTIVENESS AT BETA= 2 DEGREES

(B)MACH 2.00



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(B)MACH = 2.00

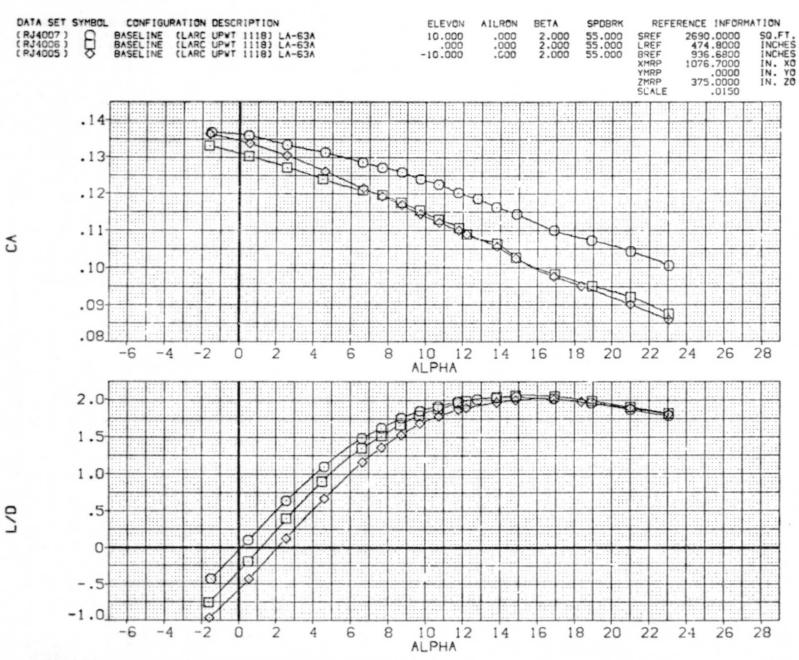
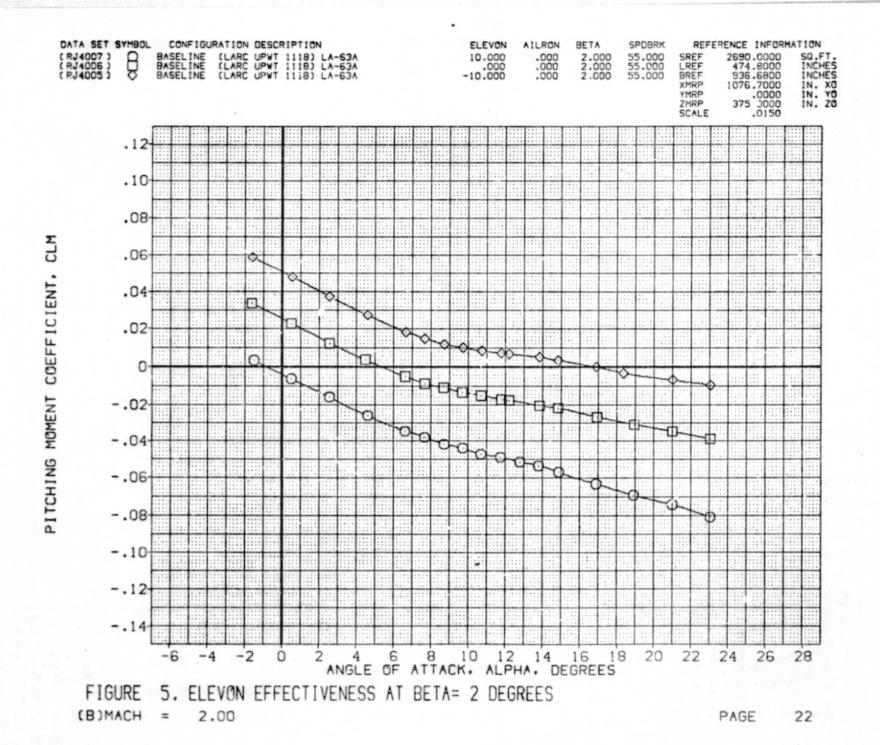


FIGURE 5. ELEVON EFFECTIVENESS AT BETA= 2 DEGREES
(B)MACH = 2.00



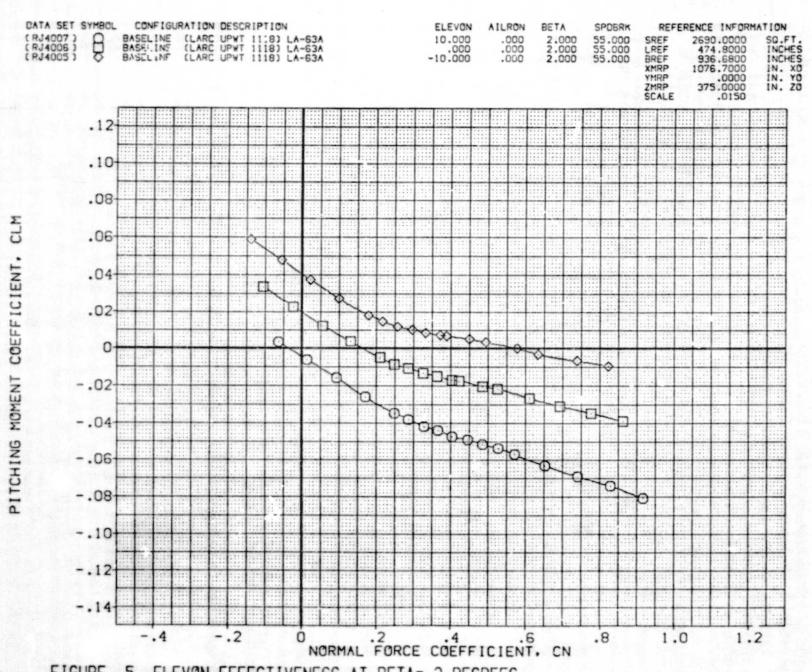
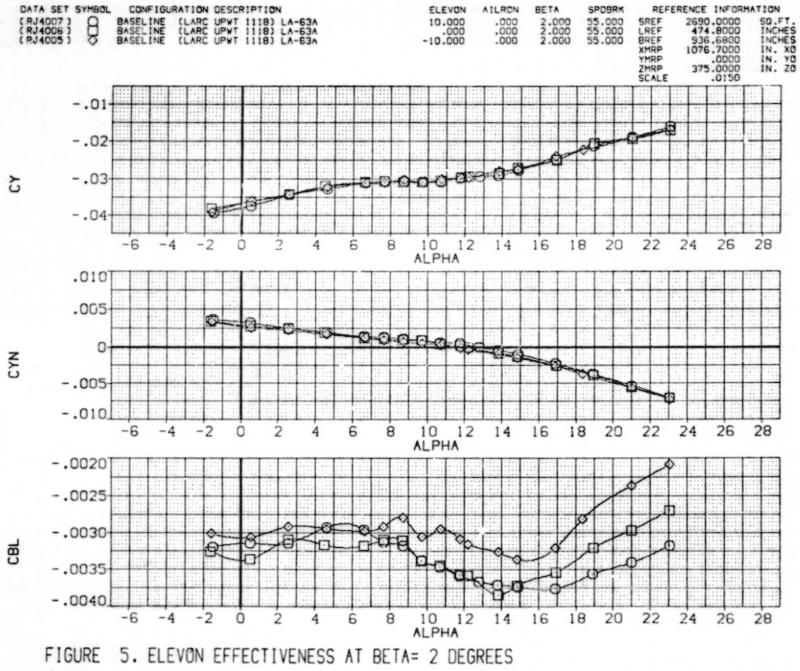


FIGURE 5. ELEVON EFFECTIVENESS AT BETA= 2 DEGREES
(B)MACH = 2.00



(B)MACH = 2.00

MAGE 24

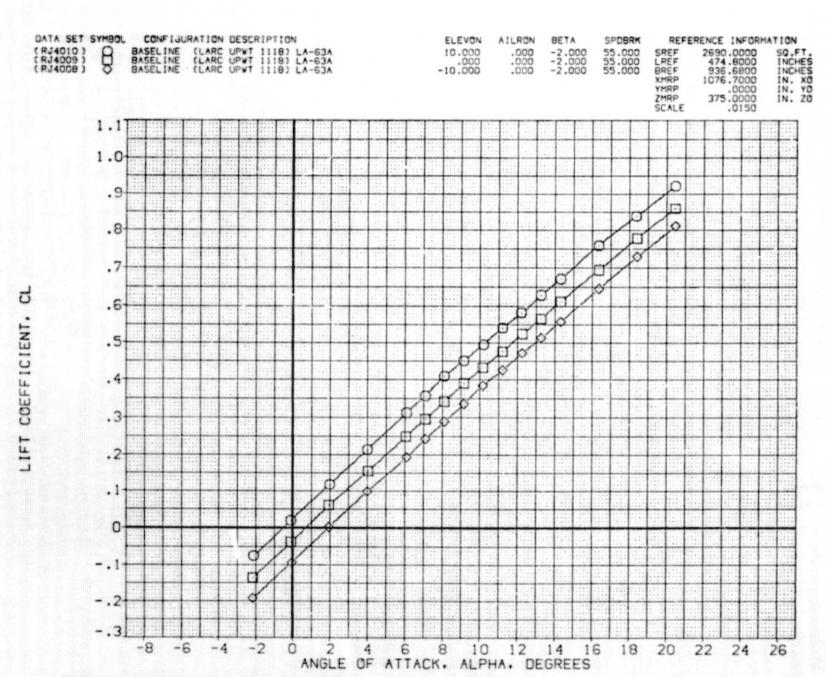
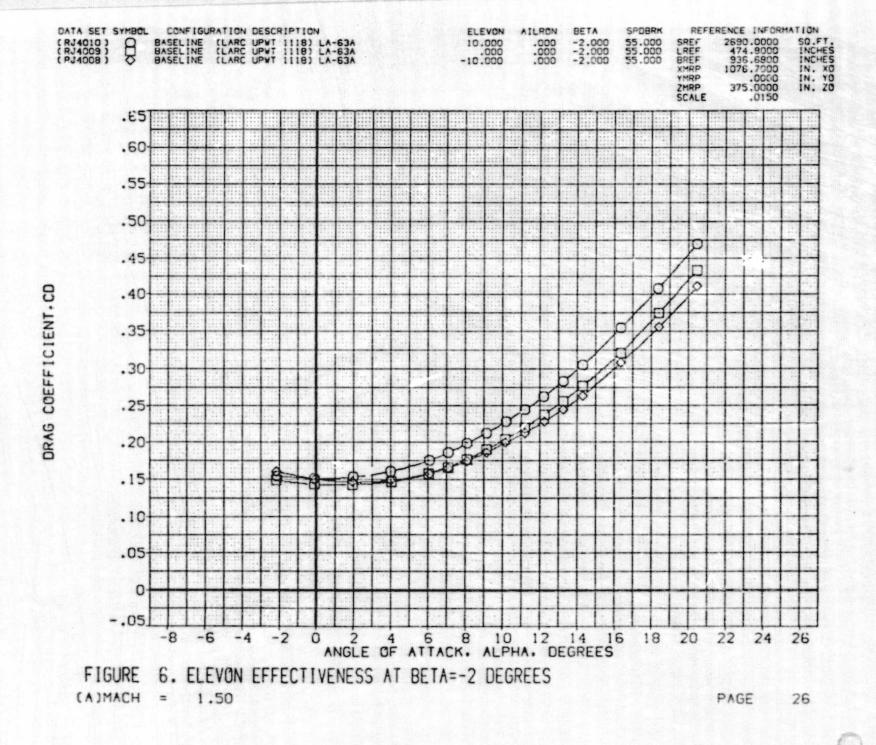


FIGURE 6. ELEVON EFFECTIVENESS AT BETA=-2 DEGREES
(A)MACH = 1.50



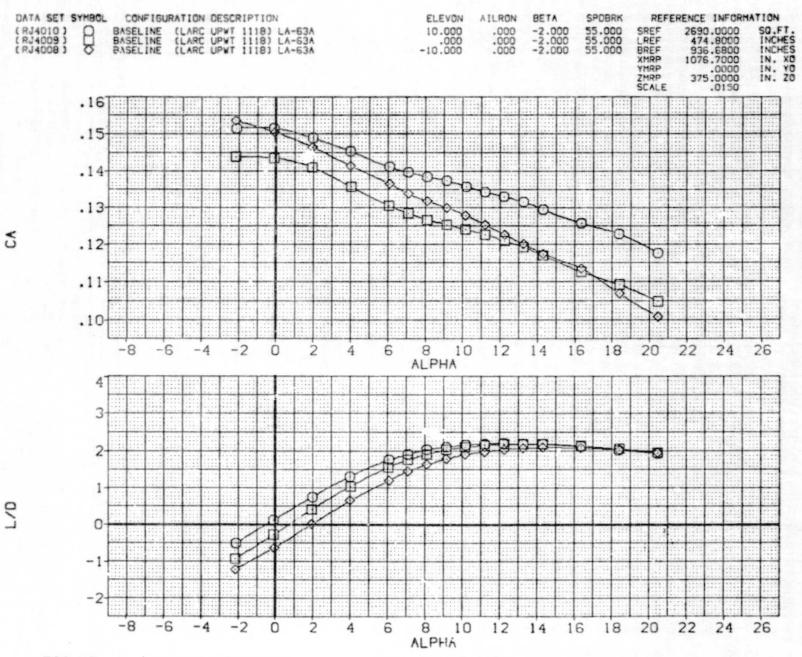
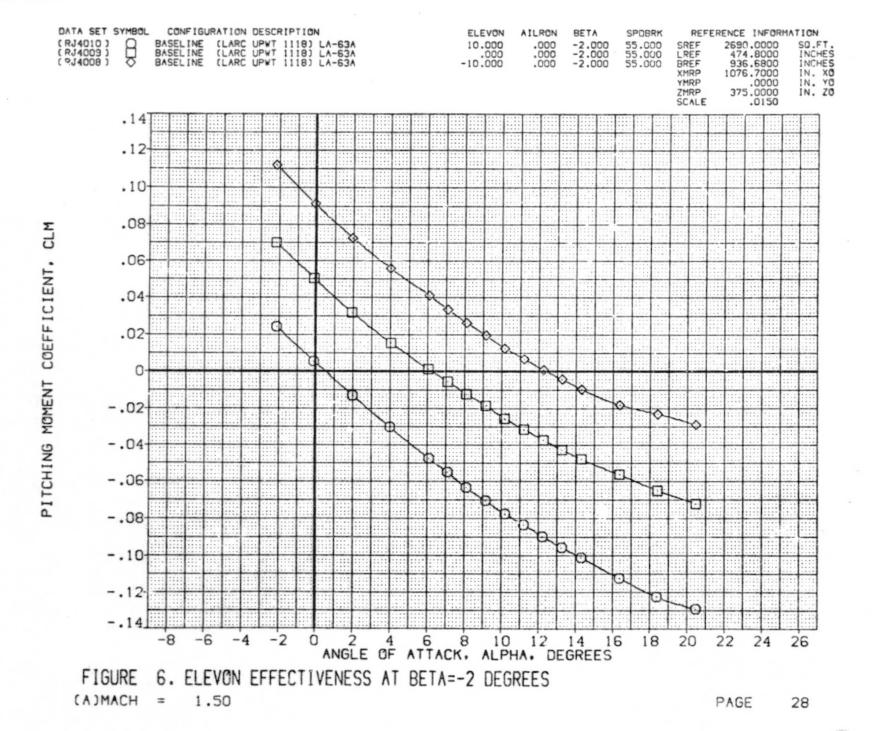


FIGURE 6. ELEVON EFFECTIVENESS AT BETA=-2 DEGREES
(A)MACH = 1.50



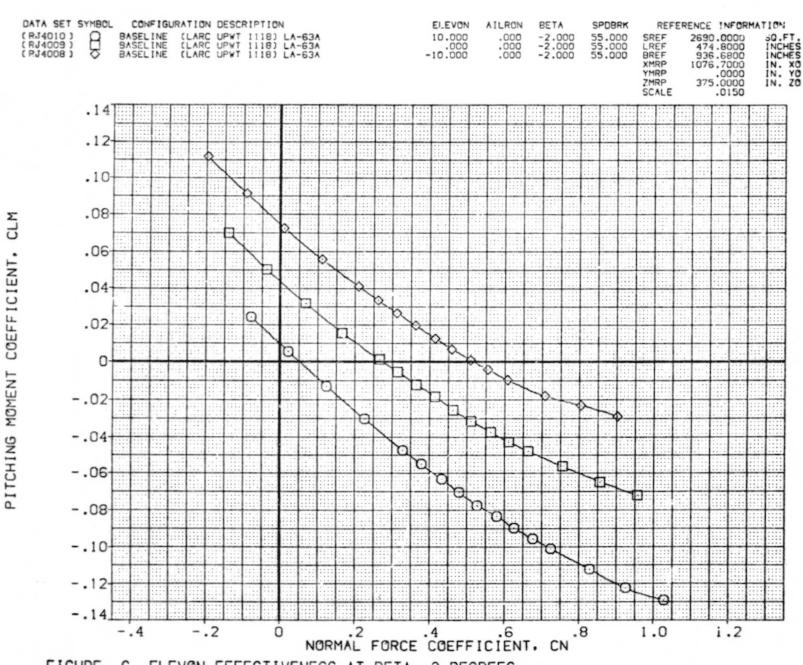


FIGURE 6. ELEVON EFFECTIVENESS AT BETA=-2 DEGREES
(A)MACH = 1.50

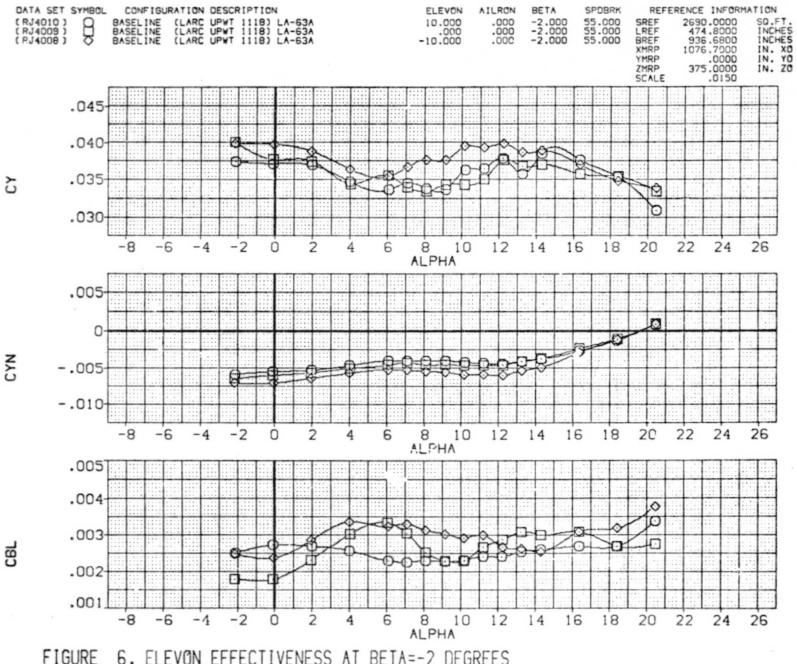


FIGURE 6. ELEVON EFFECTIVENESS AT BETA=-2 DEGREES
(A)MACH = 1.50

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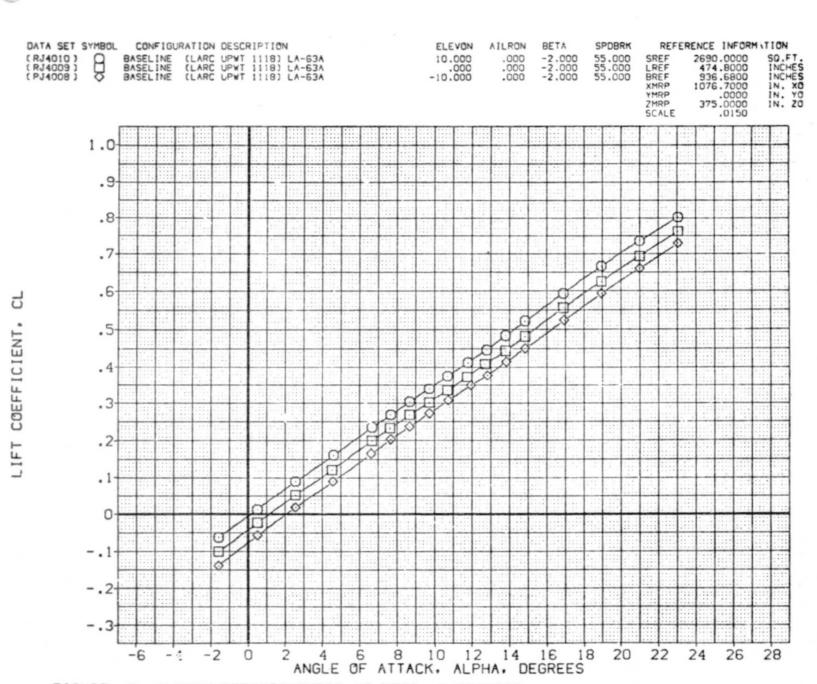
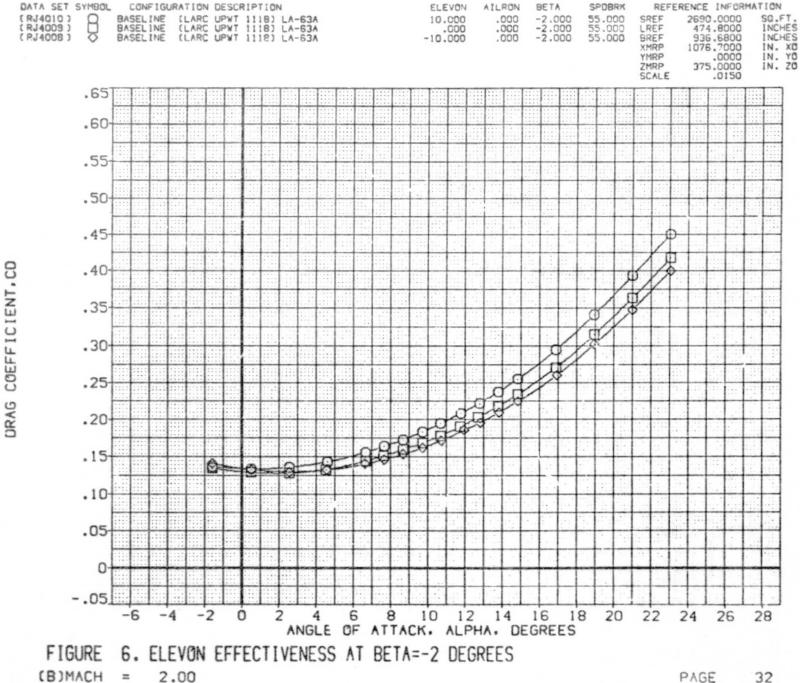


FIGURE 6. ELEVON EFFECTIVENESS AT BETA=-2 DEGREES

(B)MACH = 2.00

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(B)MACH = 2.00

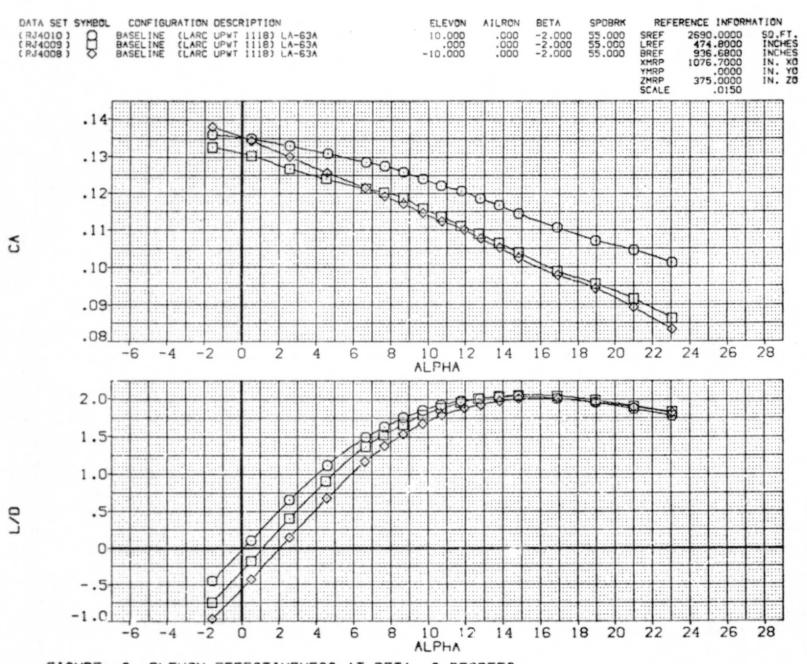
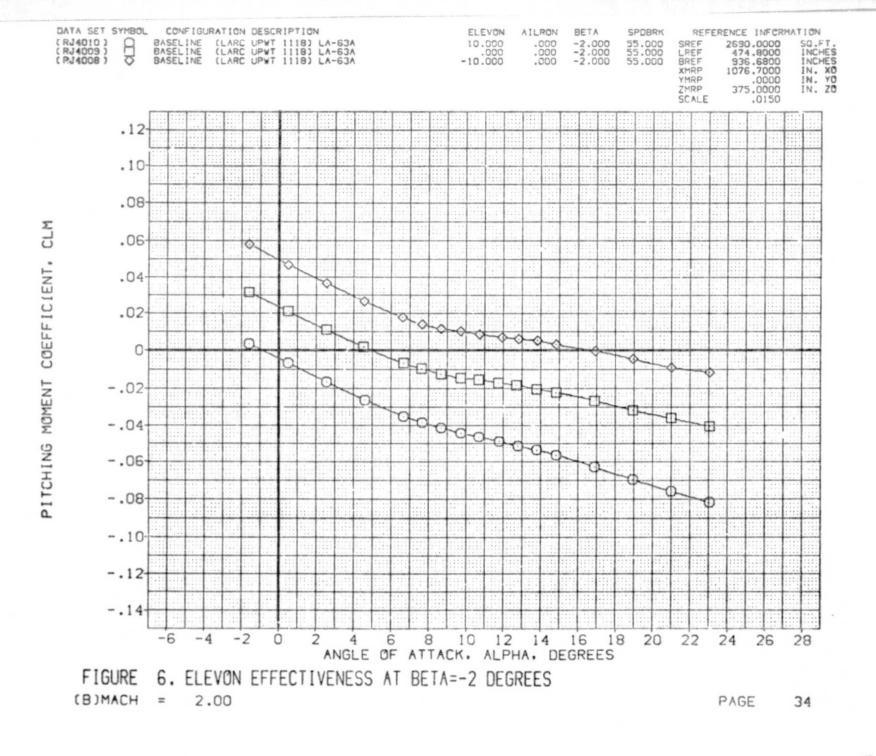


FIGURE 6. ELEVON EFFECTIVENESS AT BETA=-2 DEGREES
(B)MACH = 2.00



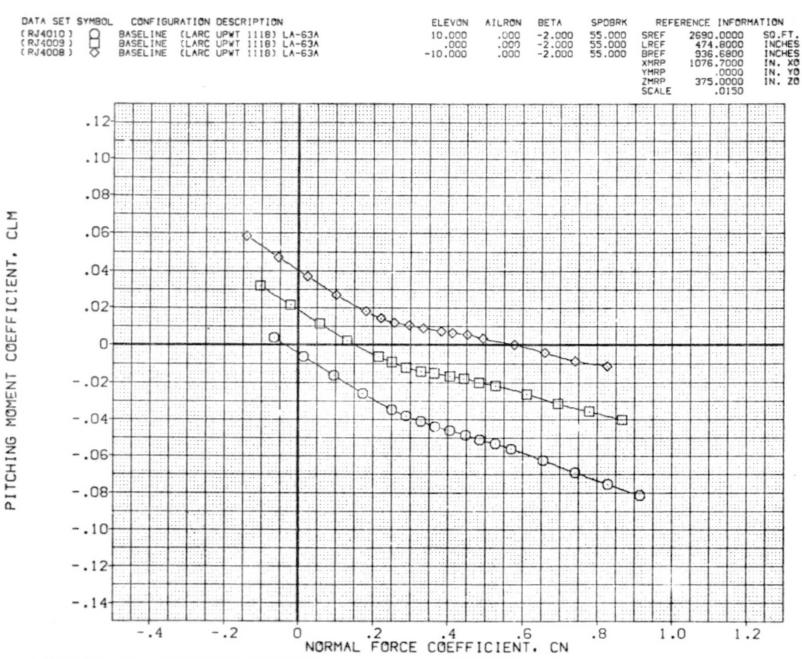
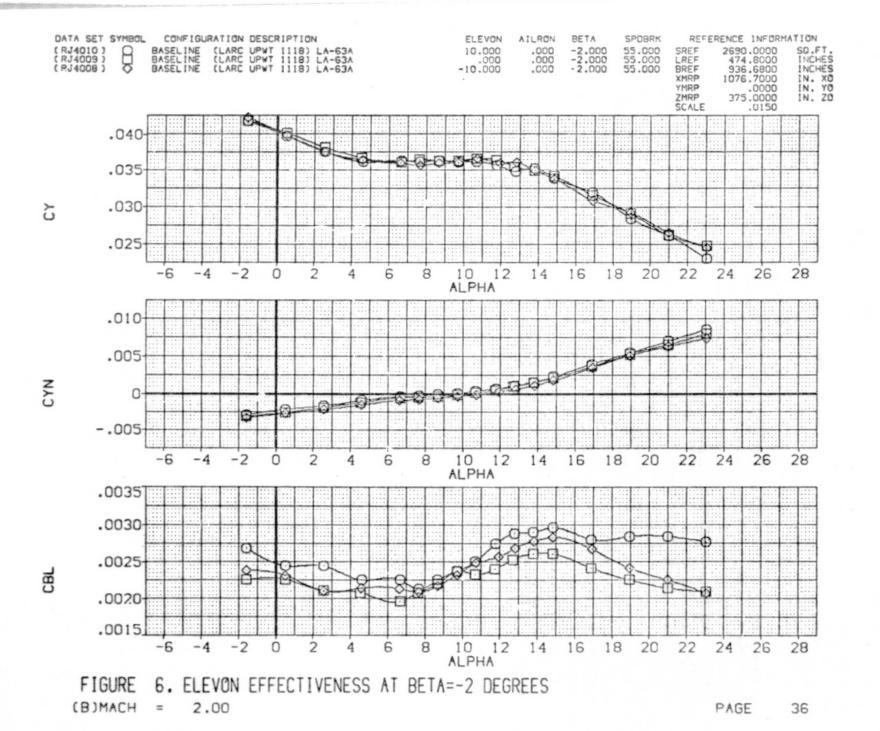


FIGURE 6. ELEVON EFFECTIVENESS AT BETA=-2 DEGREES

(B)MACH = 2.00



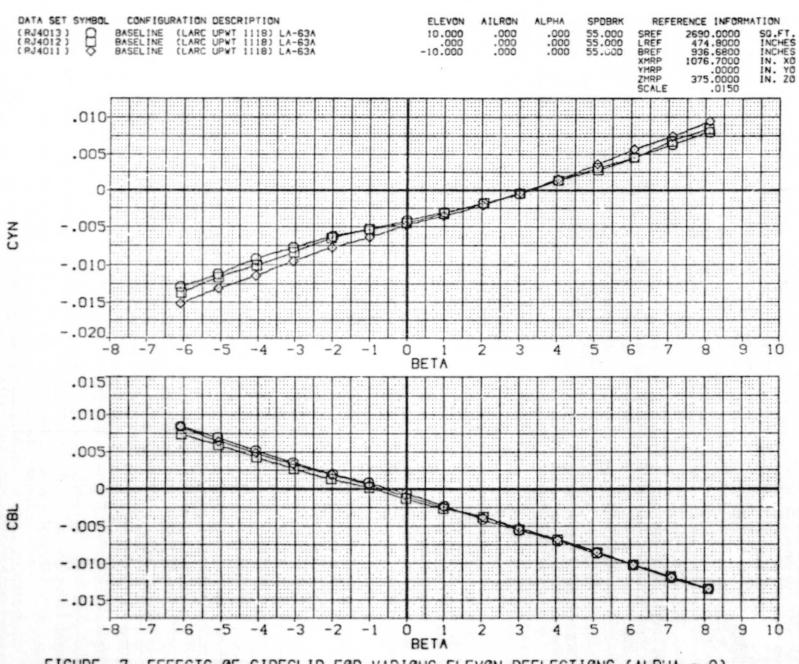
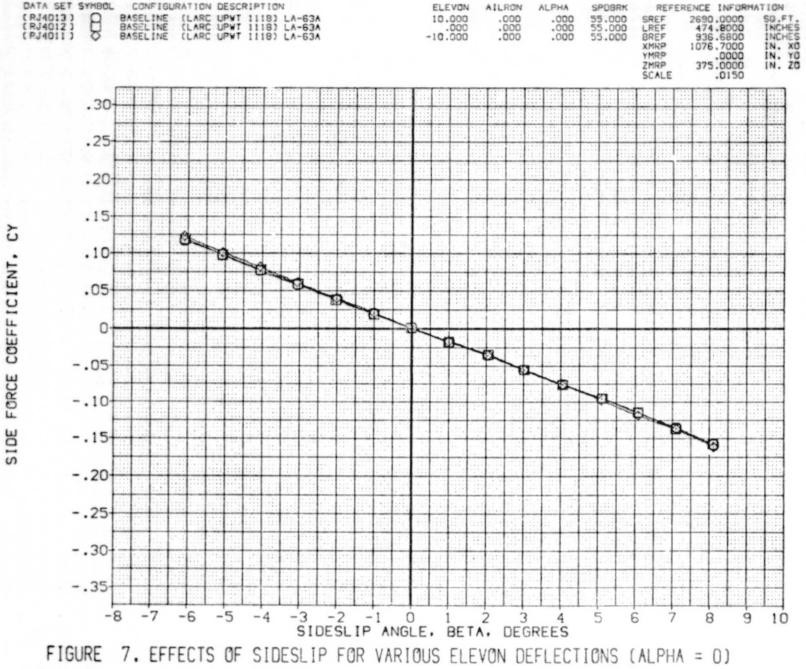


FIGURE 7. EFFECTS OF SIDESLIP FOR VARIOUS ELEVON DEFLECTIONS (ALPHA = 0) (A)MACH = 1.50PAGE



(A)MACH = 1.50PAGE 38

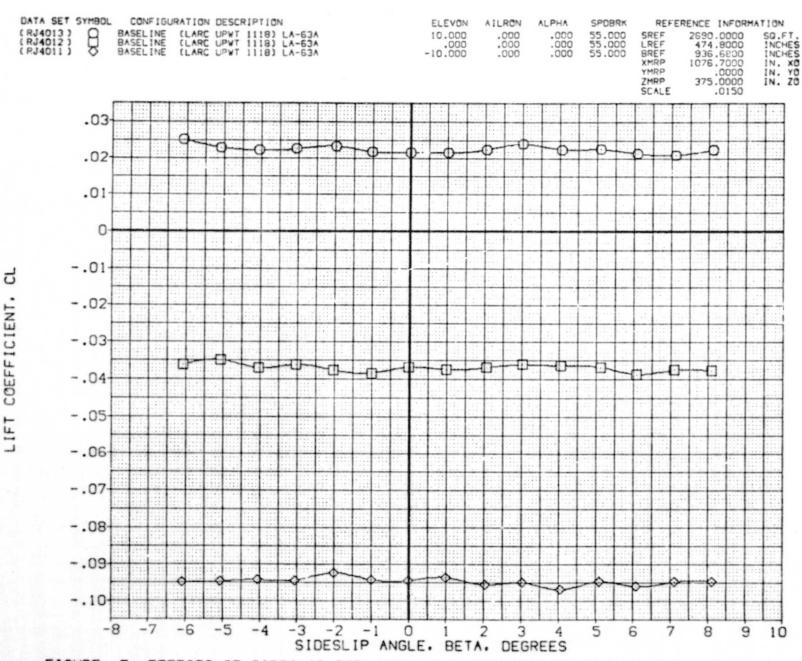
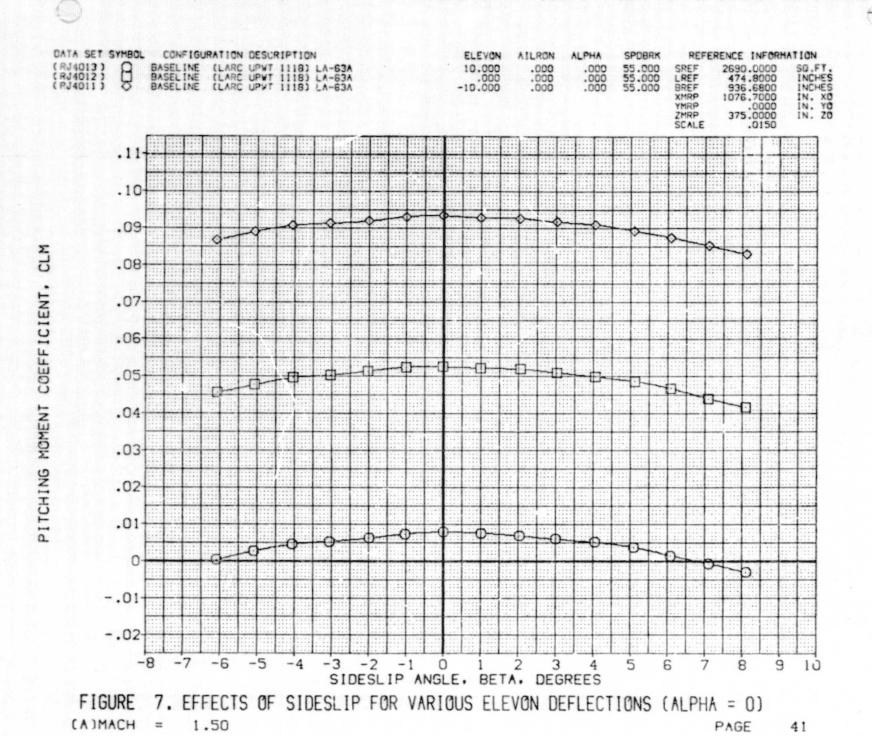


FIGURE 7. EFFECTS OF SIDESLIP FOR VARIOUS ELEVON DEFLECTIONS (ALPHA = 0)

(A)MACH = 1.50

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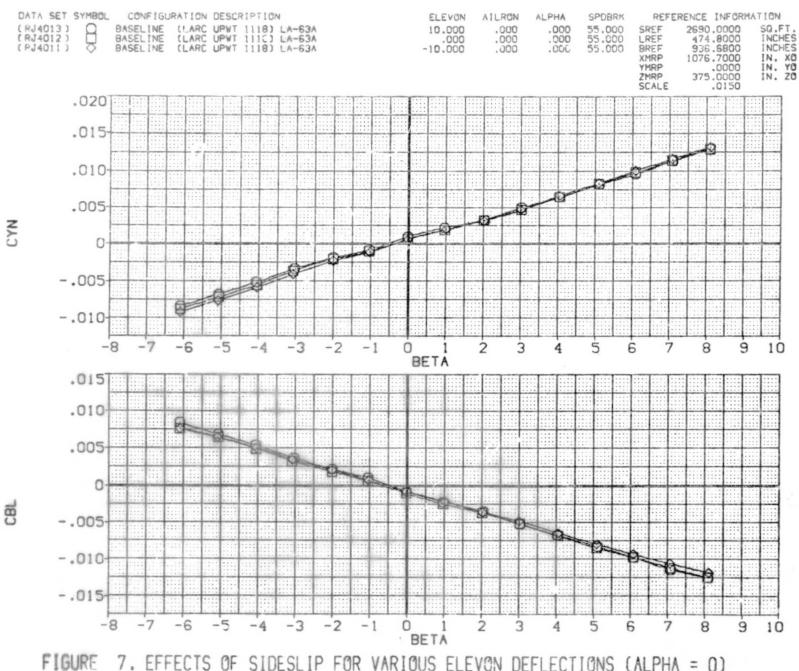
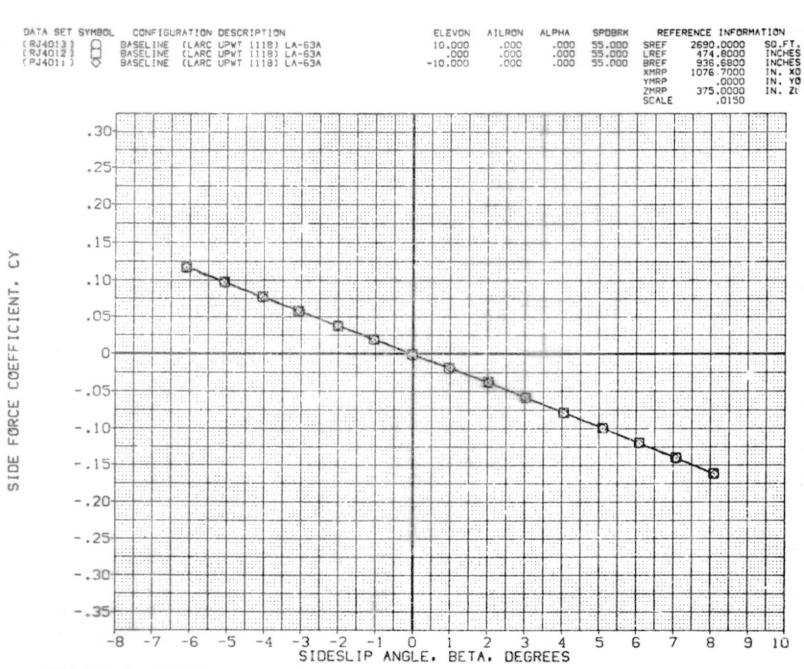


FIGURE 7. EFFECTS OF SIDESLIP FOR VARIOUS ELEVON DEFLECTIONS (ALPHA = 0)

(A)MACH = 2.00 PAGE 42



7. EFFECTS OF SIDESLIP FOR VARIOUS ELEVON DEFLECTIONS (ALPHA = 0) FIGURE (A)MACH = 2.00

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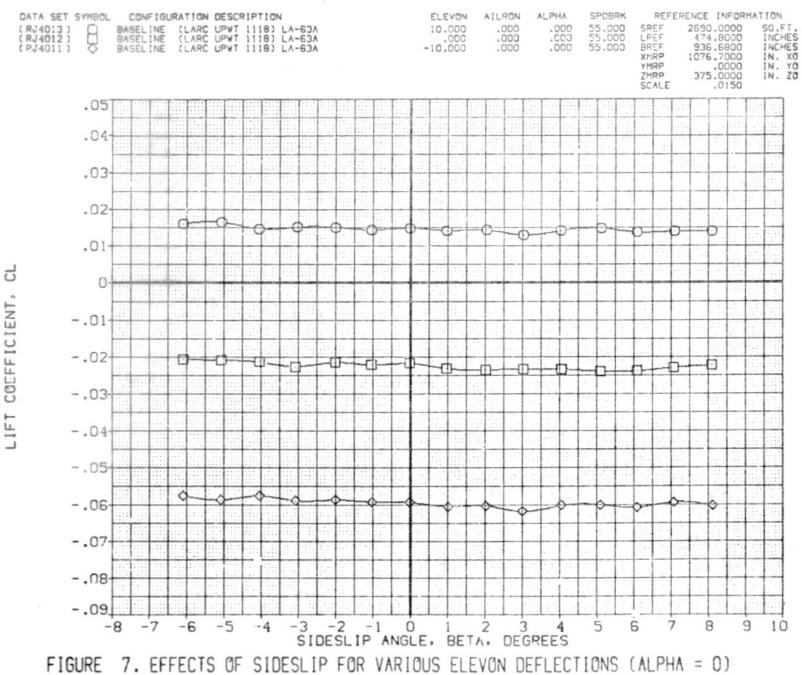


FIGURE 7. EFFECTS OF SIDESLIP FOR VARIOUS ELEVON DEFLECTIONS (ALPHA = 0)

(A)MACH = 2.00

PAGE 44

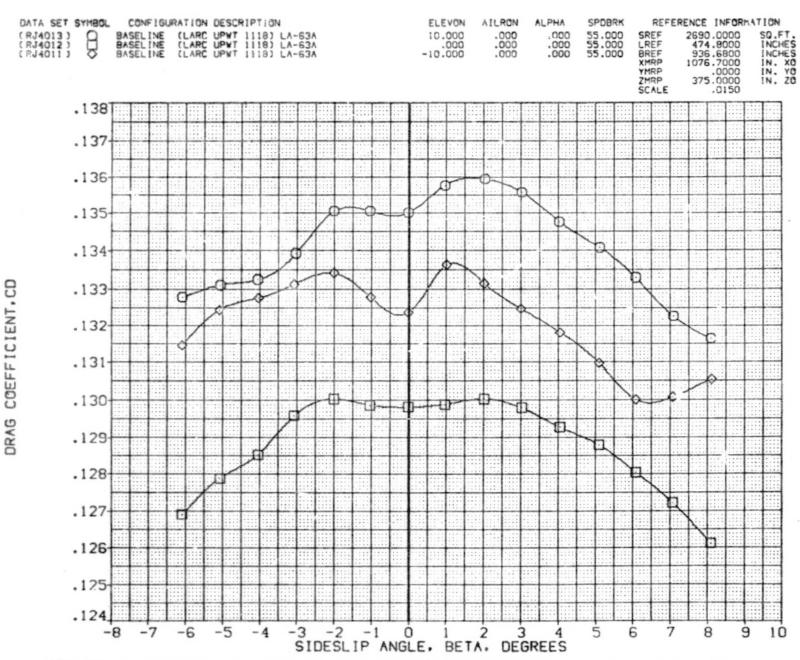
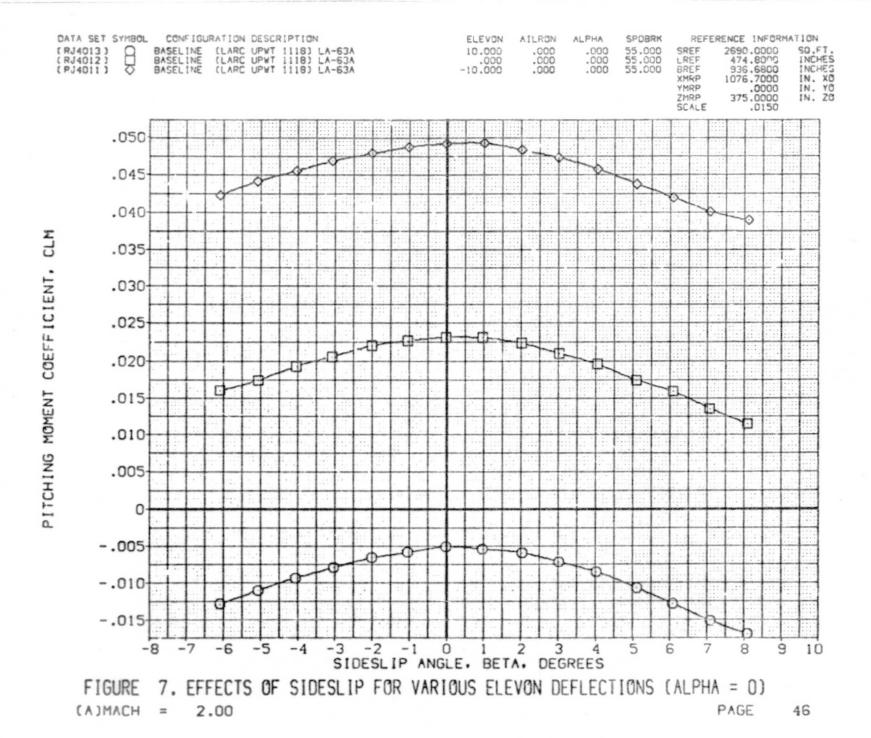


FIGURE 7. EFFECTS OF SIDESLIP FOR VARIOUS ELEVON DEFLECTIONS (ALPHA = 0)

(A)MACH = 2.00

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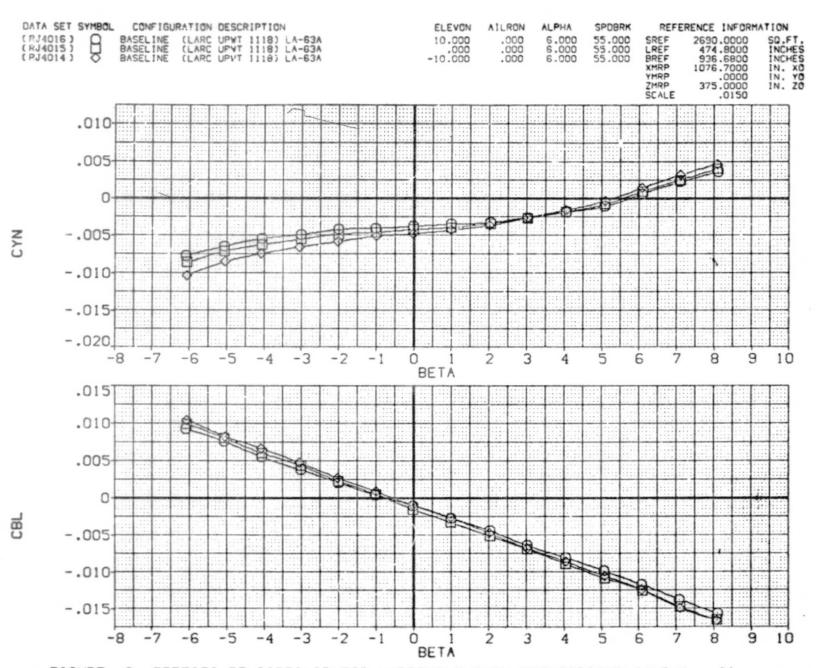


FIGURE 8. EFFECTS OF SIDESLIP FOR VARIOUS ELEVON DEFLECTIONS (ALPHA = 6)

(A)MACH = 1.50

PAGE 47

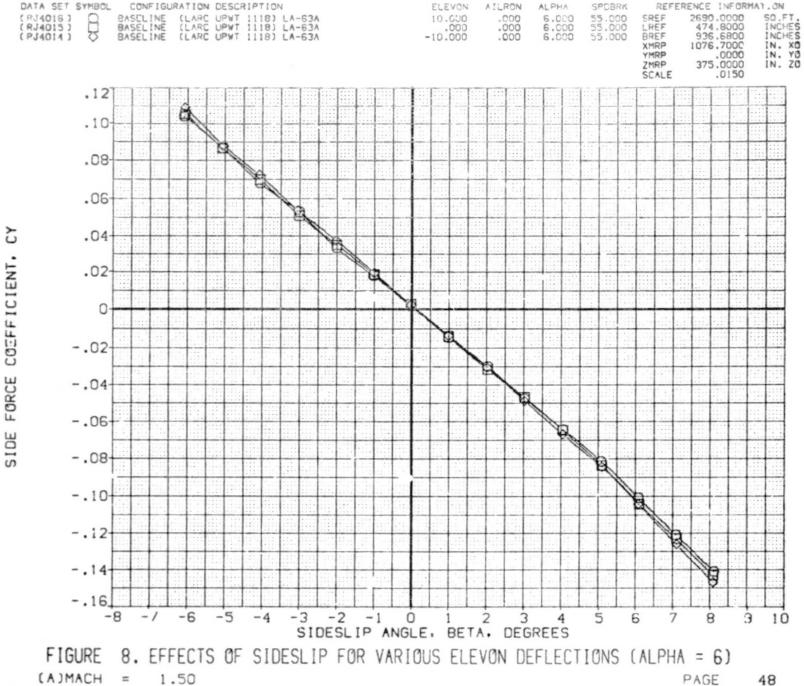
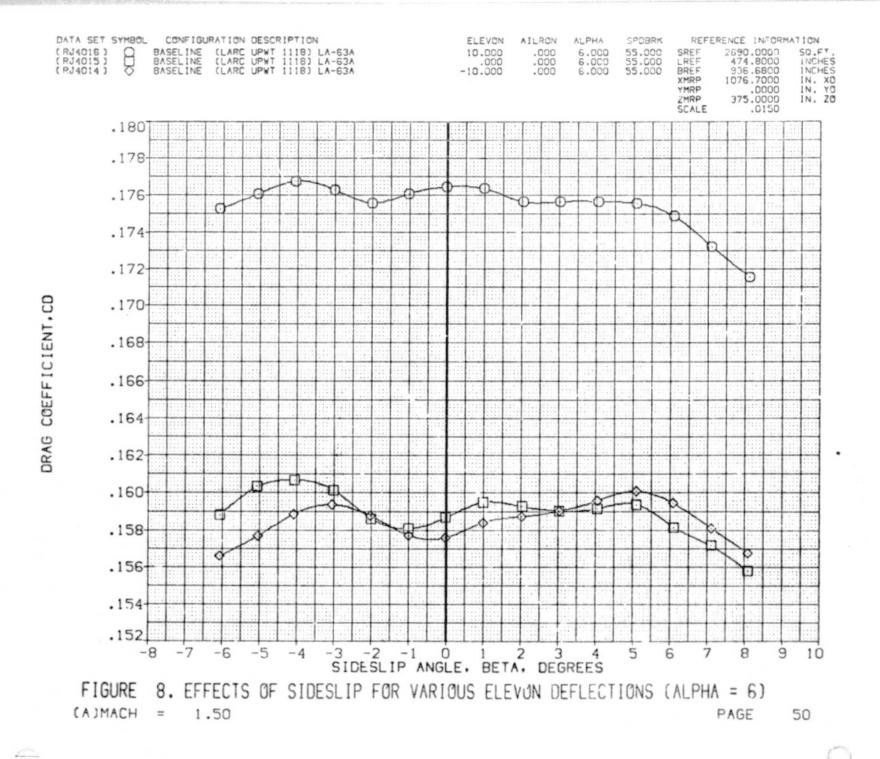


FIGURE 8. EFFECTS OF SIDESLIP FOR VARIOUS ELEVON DEFLECTIONS (ALPHA = 6)

(A)MACH = 1.50

PAGE



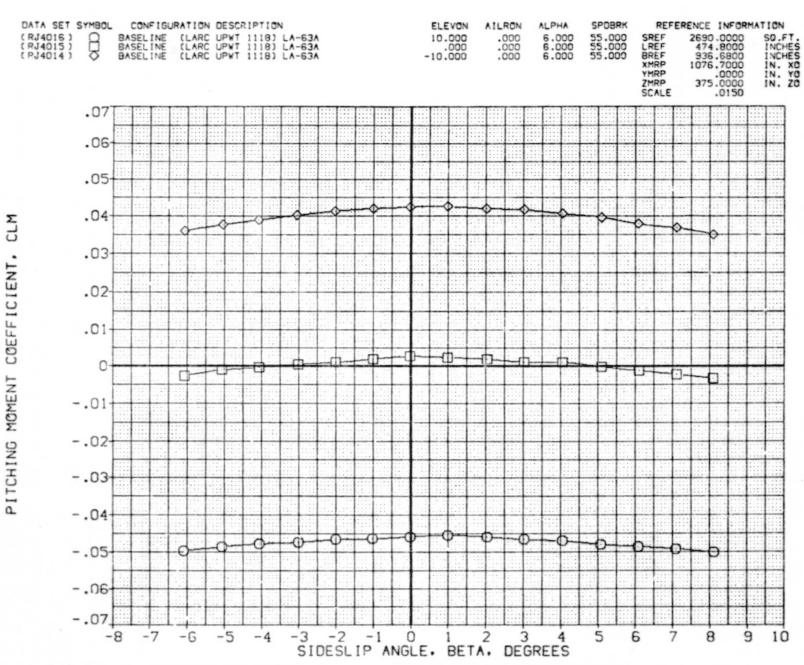
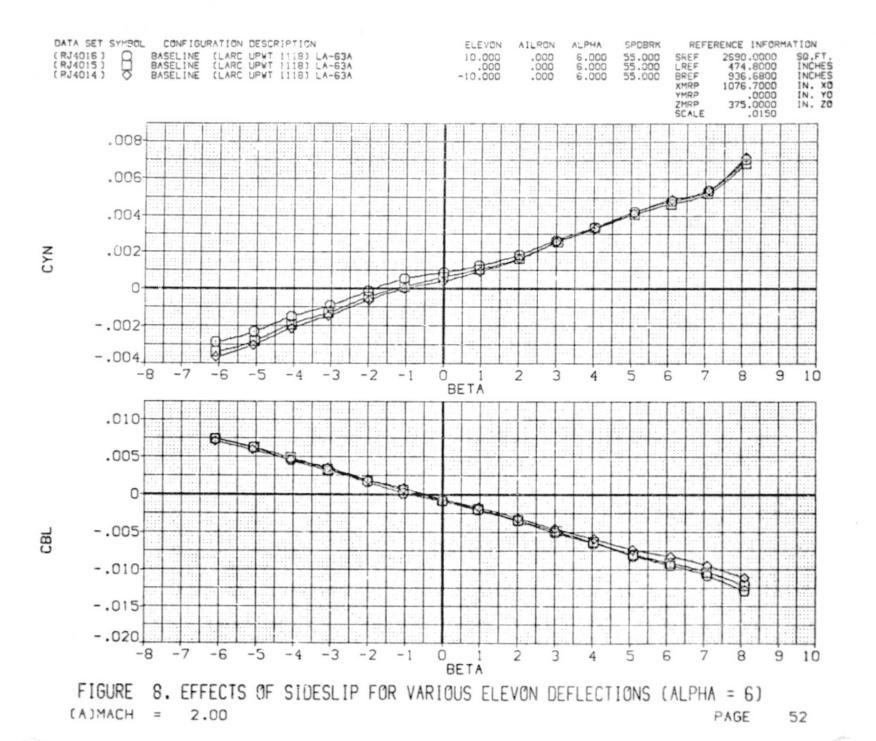


FIGURE 8. EFFECTS OF SIDESLIP FOR VARIOUS ELEVON DEFLECTIONS (ALPHA = 6)

(A)MACh = 1.50

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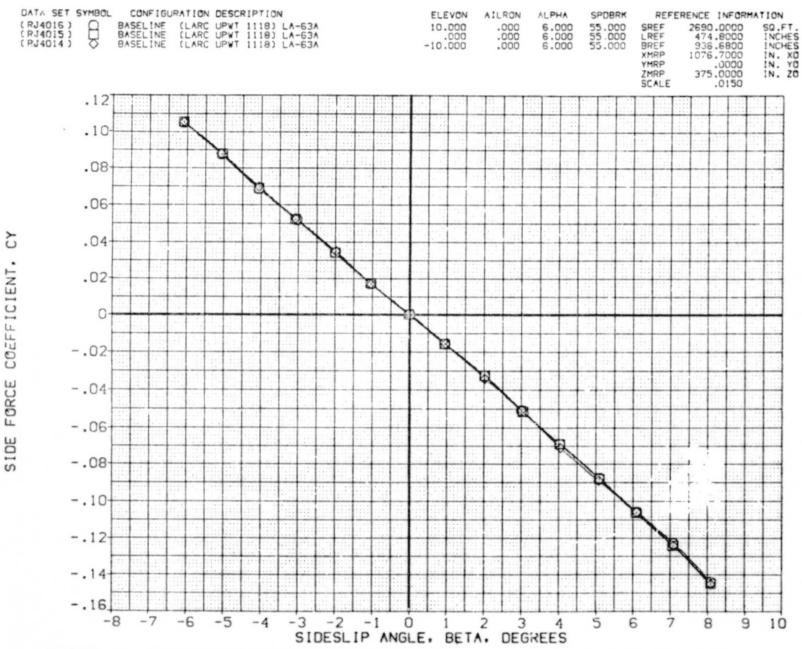


FIGURE 8. EFFECTS OF SIDESLIP FOR VARIOUS ELEVON DEFLECTIONS (ALPHA = 6)

(A)MACH = 2.00

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FIGURE 8. EFFECTS OF SIDESLIP FOR VARIOUS ELEVON DEFLECTION'S (ALPHA = 6)

(A)MACH = 2.00

PAGE 54

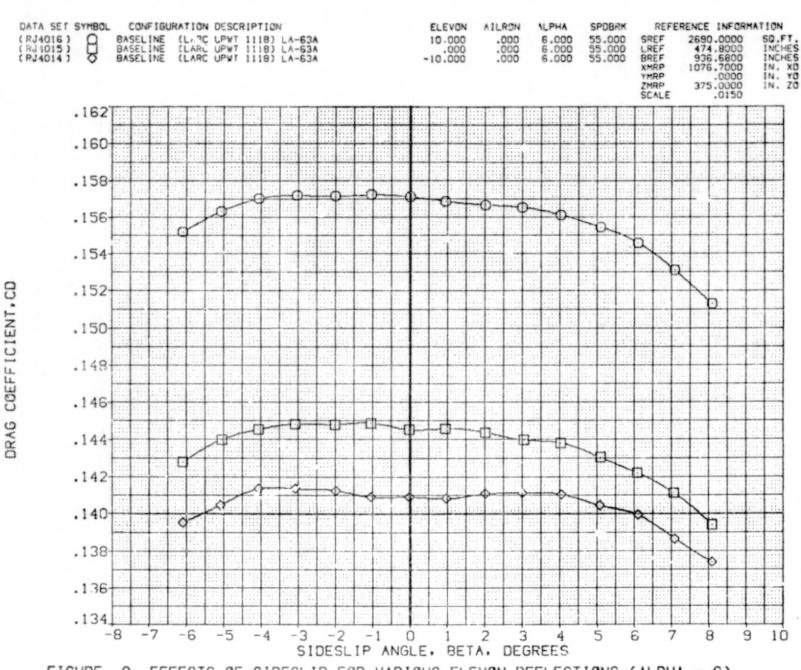
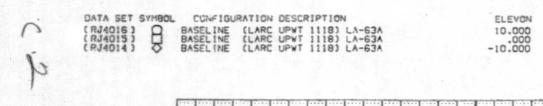


FIGURE 8. EFFECTS OF SIDESLIP FOR VARIOUS ELEVON DEFLECTIONS (ALPHA = 6)

(A)MACH = 2.00

PAGE 55



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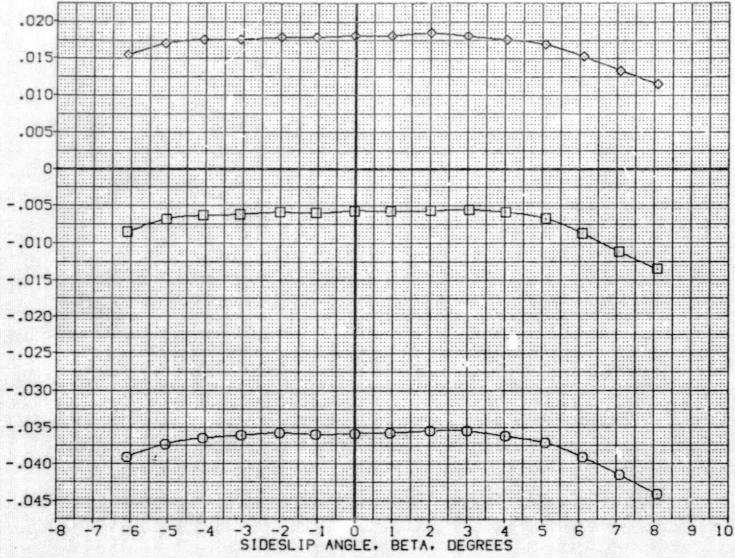


FIGURE 8. EFFECTS OF SIDESLIP FOR VARIOUS ELEVON DEFLECTIONS (ALPHA = 6)

(A)MACH = 2.00

PAGE 56

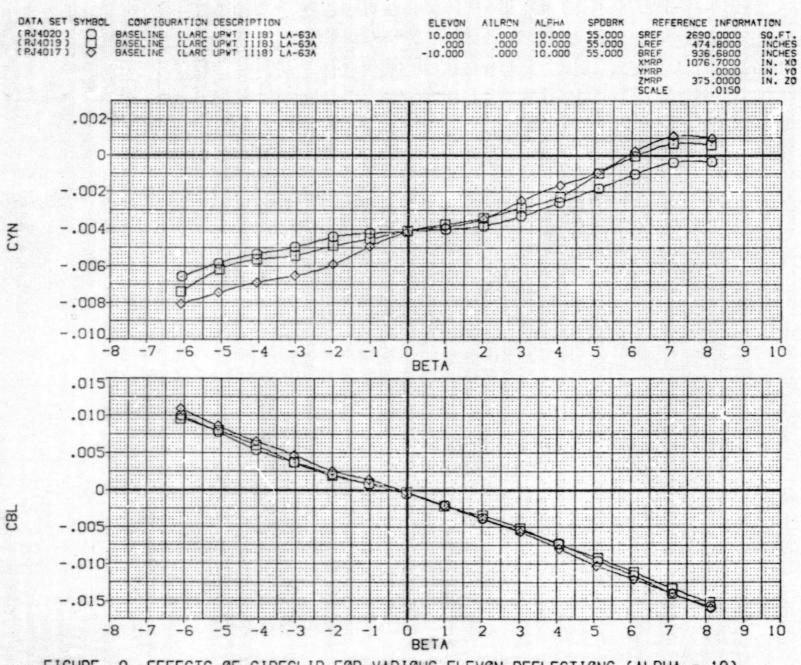
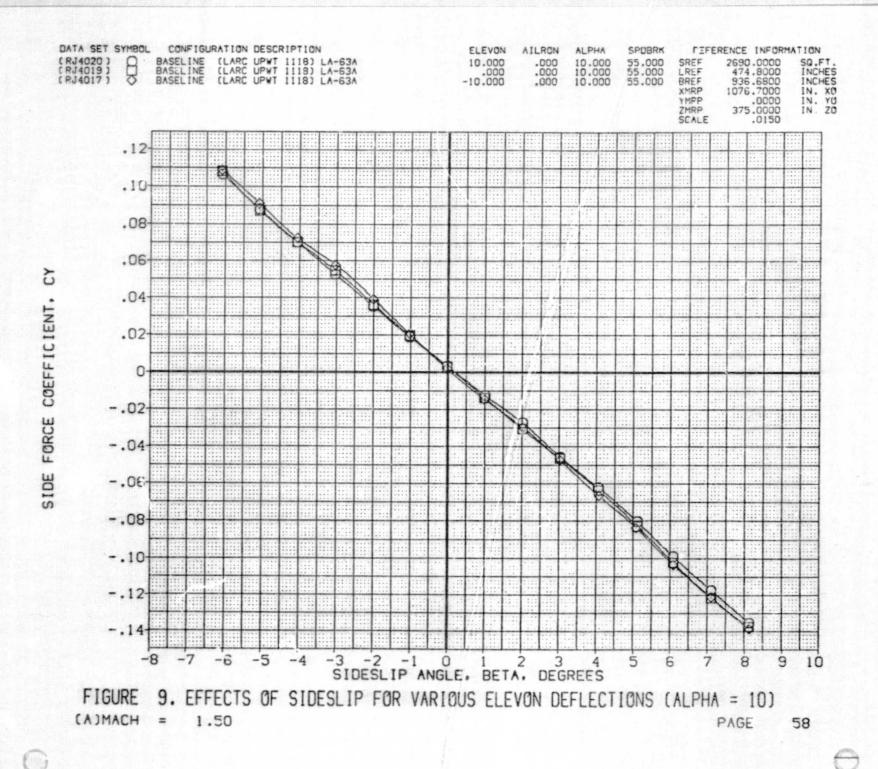


FIGURE 9. EFFECTS OF SIDESLIP FOR VARIOUS ELEVON DEFLECTIONS (ALPHA = 10)

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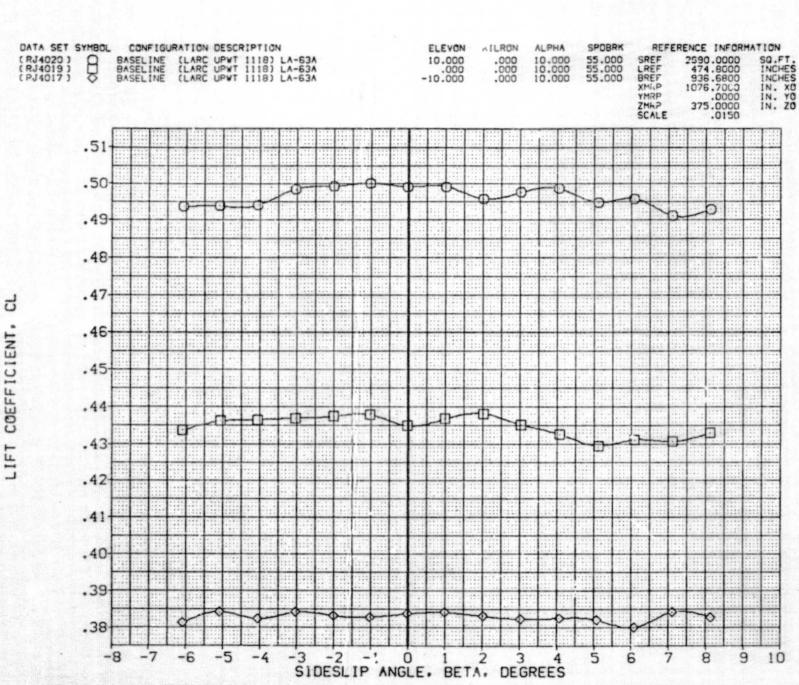
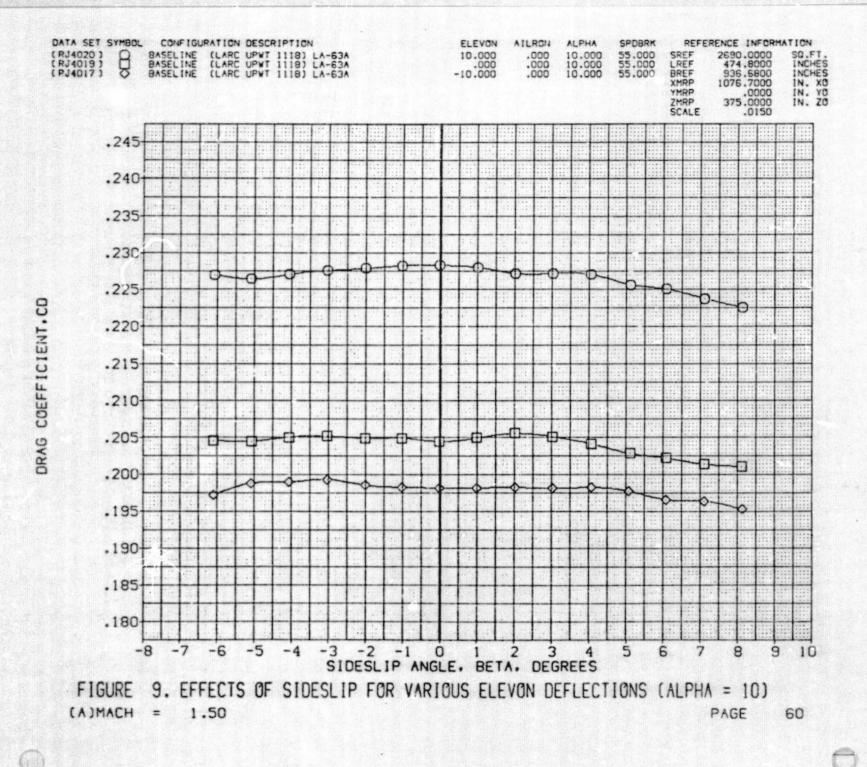
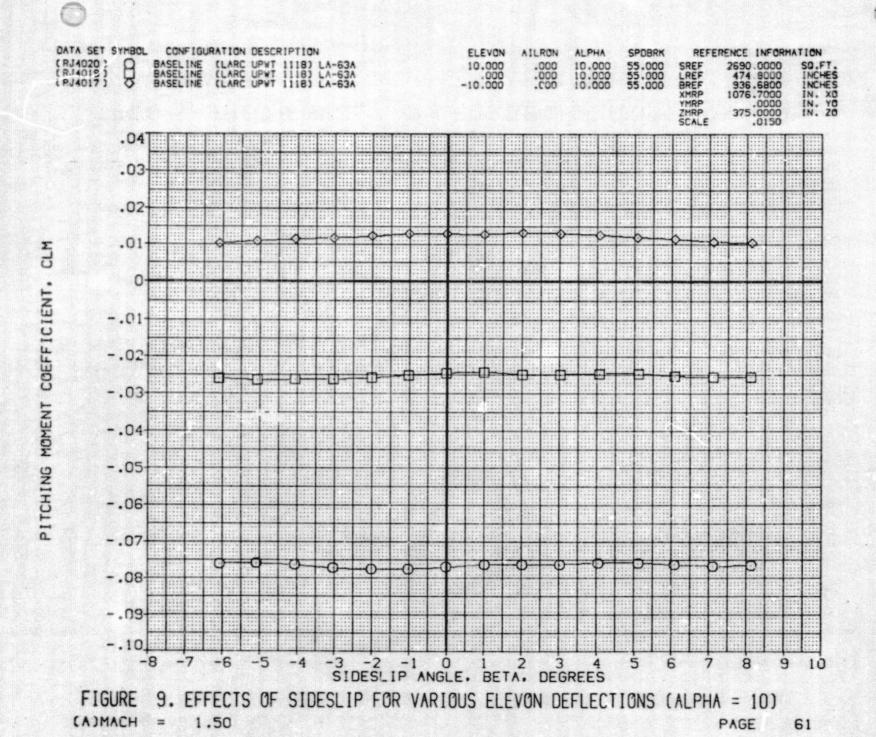


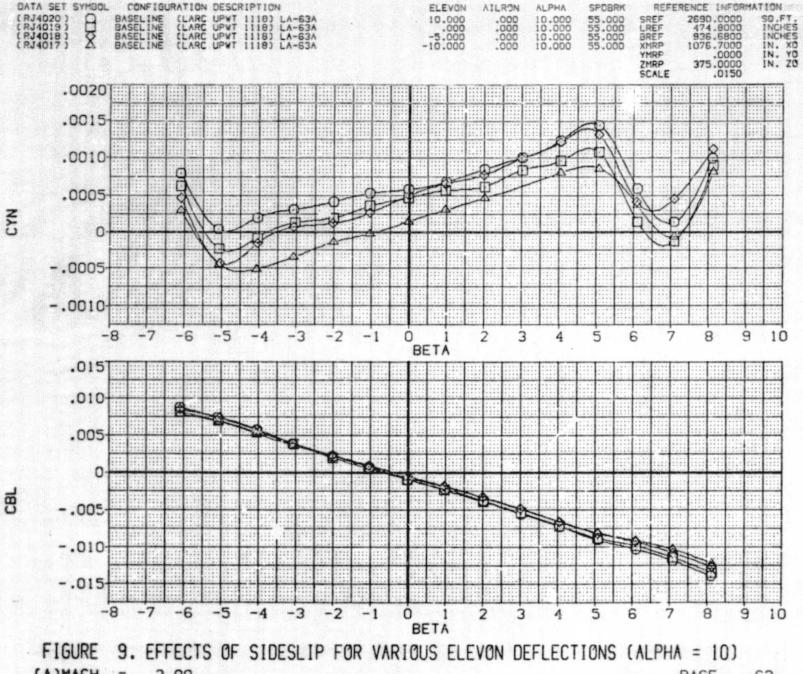
FIGURE 9. EFFECTS OF SIDESLIP FOR VARIOUS ELEVON DEFLECTIONS (ALPHA = 10)

(A)MACF = 1.50

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(A)MACH 2.00 PAGE 62

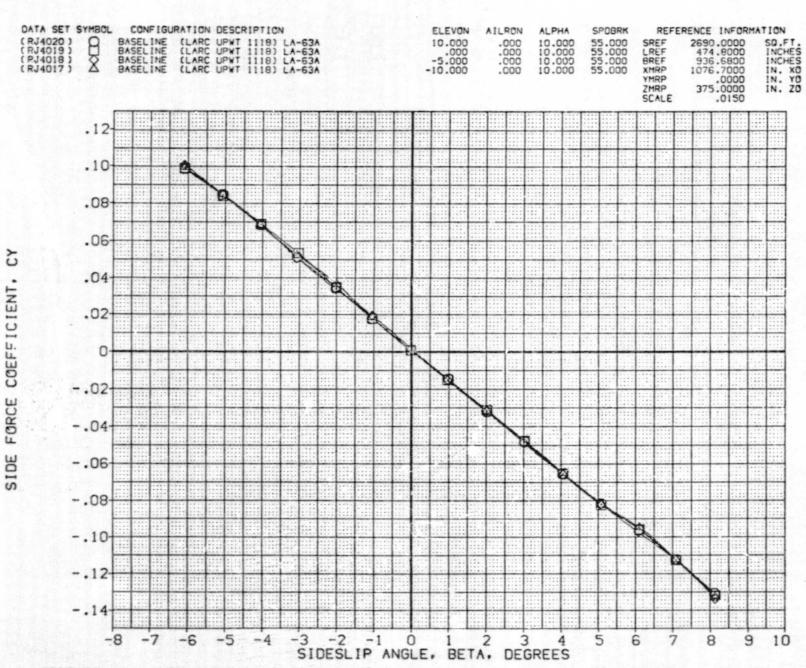


FIGURE 9. EFFECTS OF SIDESLIP FOR VARIOUS ELEVON DEFLECTIONS (ALPHA = 10)

(A)MACH = 2.00

PAGE

FIGURE 9. EFFECTS OF SIDESLIP FOR VARIOUS ELEVON DEFLECTIONS (ALPHA = 10)

(A)MACH = 2.00

PAGE 64

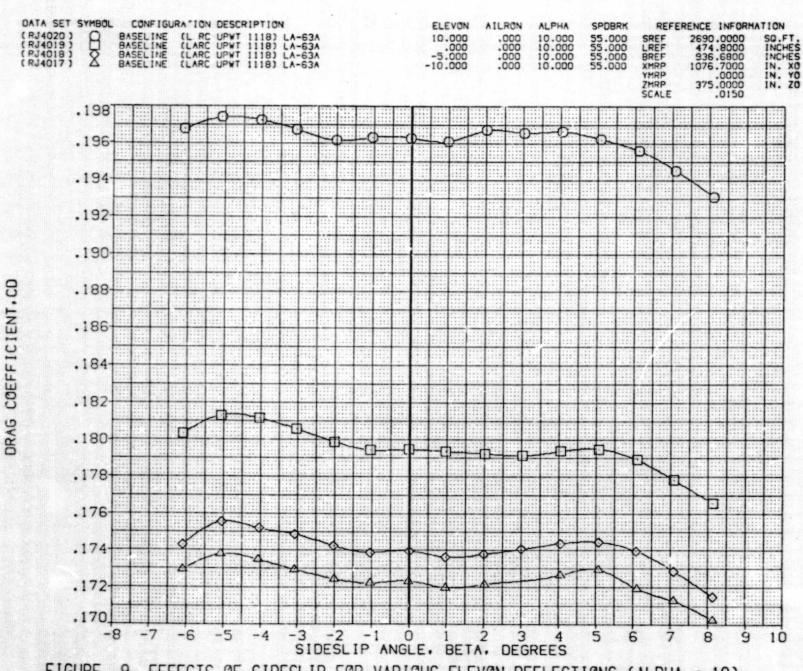
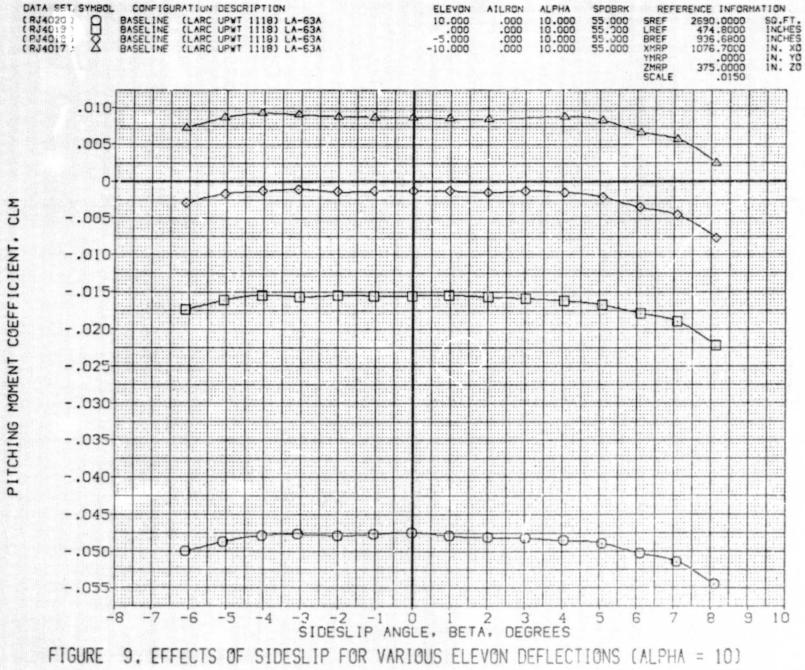


FIGURE 9. EFFECTS OF SIDESLIP FOR VARIOUS ELEVON DEFLECTIONS (ALPHA = 10)

(A)MACH = 2.00

PAGE



(A)MACH = 2.00PAGE 66

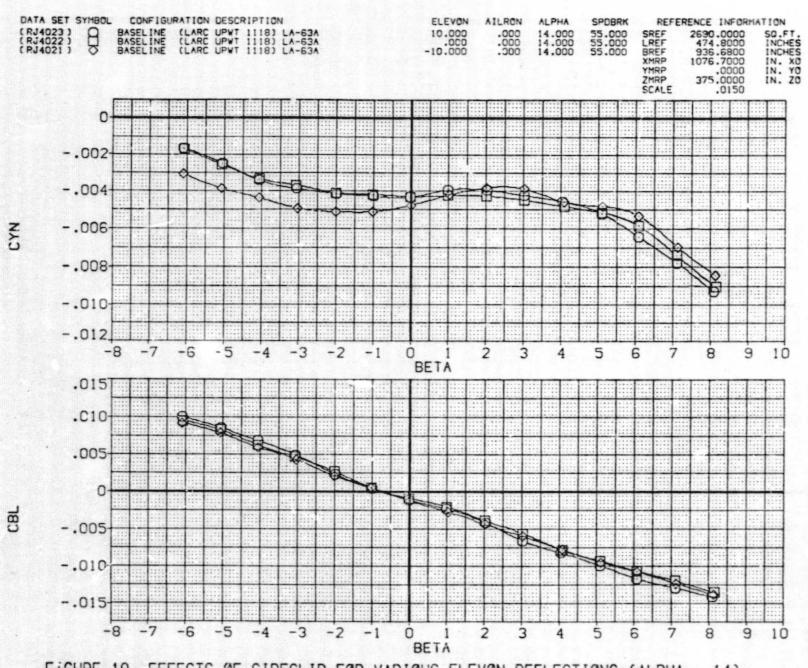
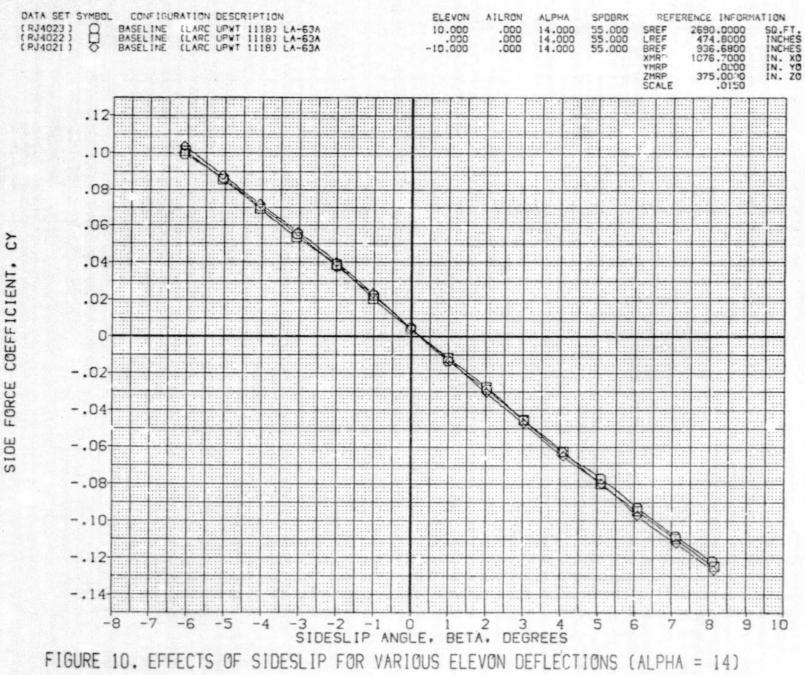


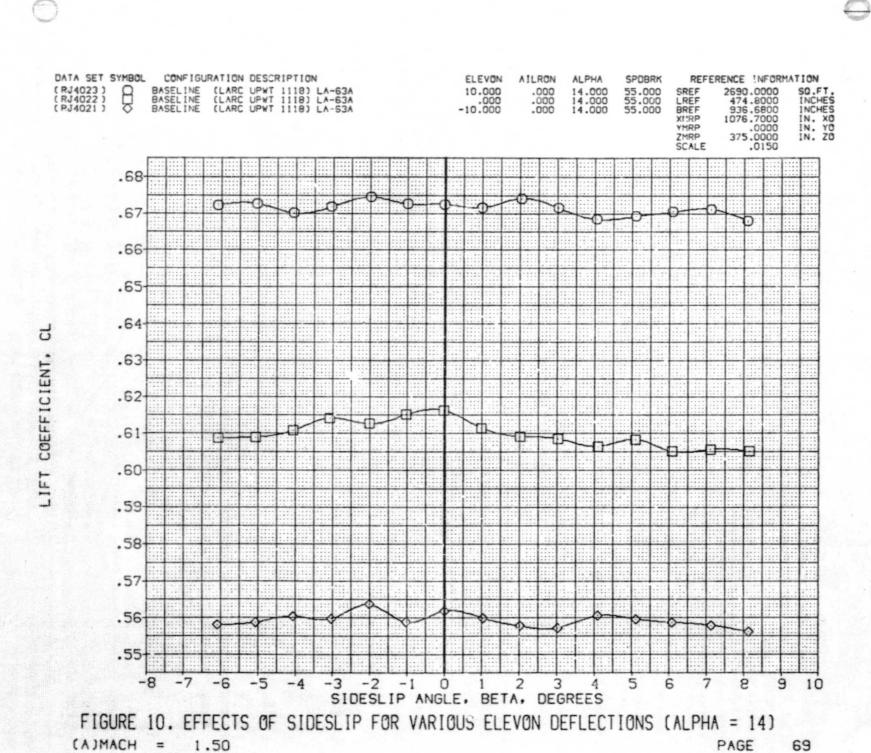
FIGURE 10. EFFECTS OF SIDESLIP FOR VARIOUS ELEVON DEFLECTIONS (ALPHA = 14)

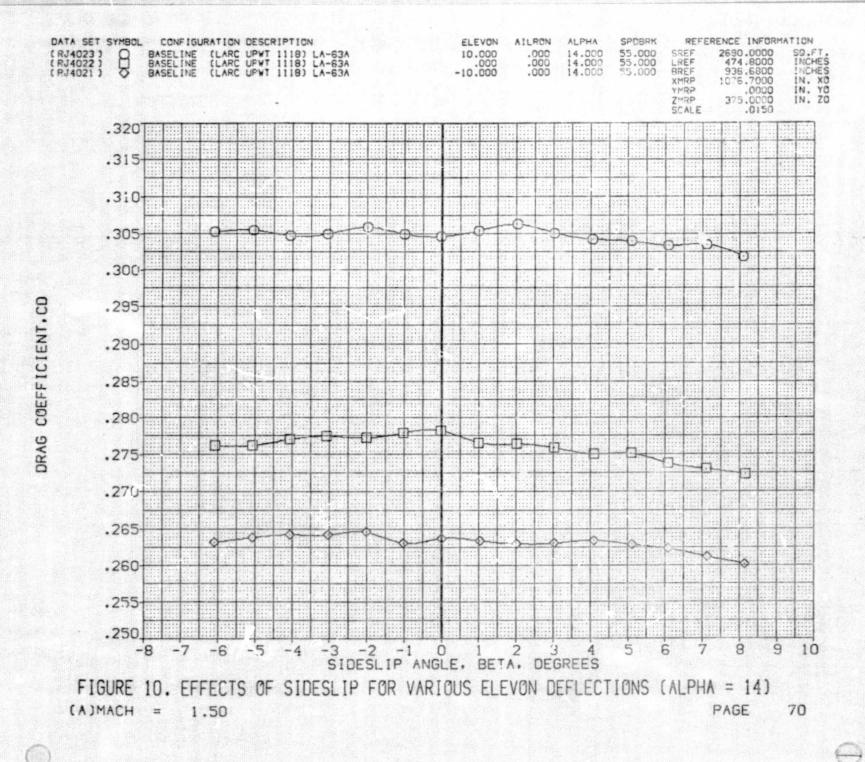
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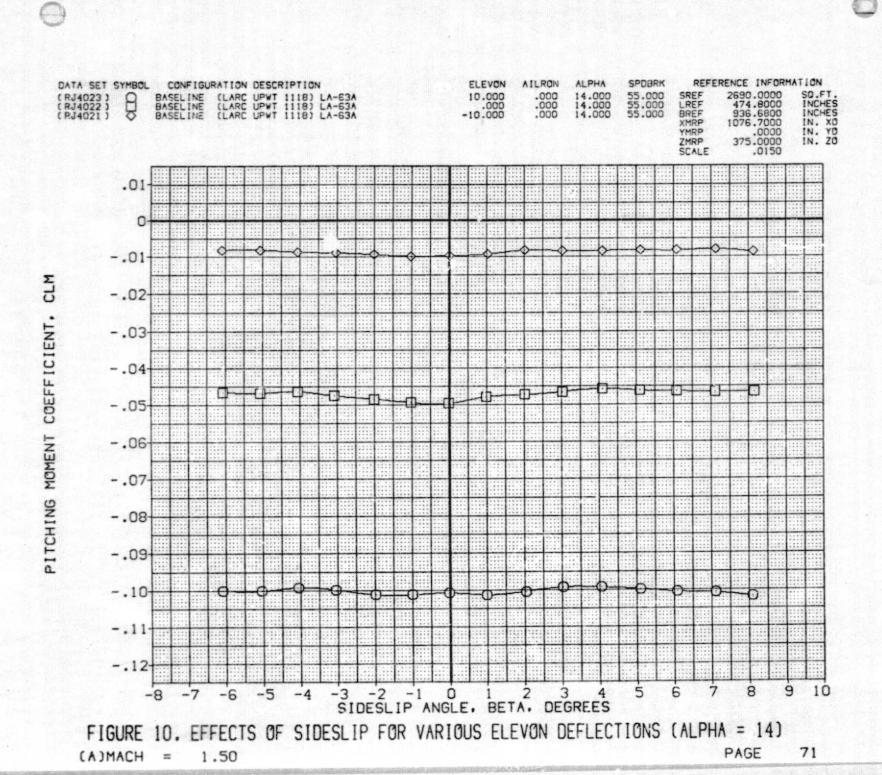
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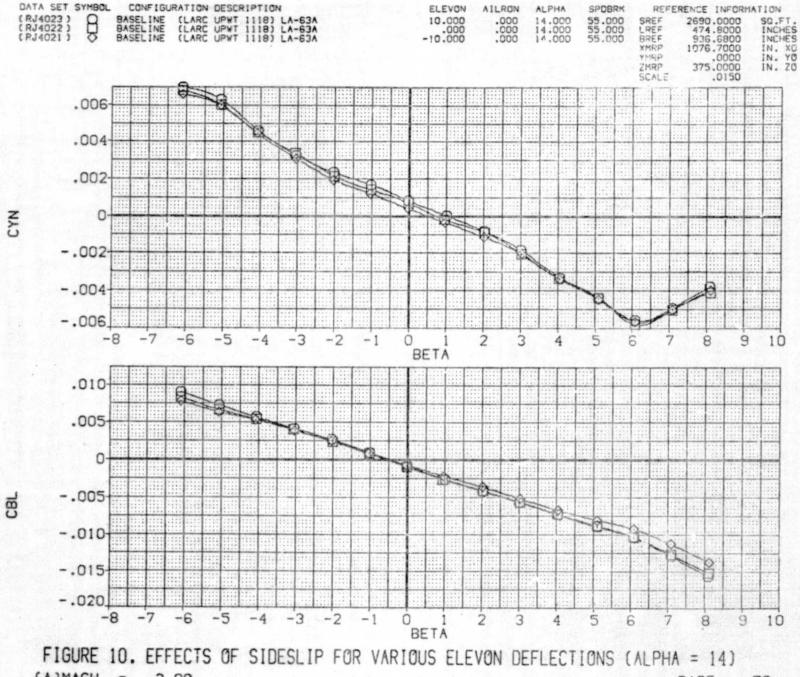


(A)MACH = 1.50PAGE 68









(A)MACH = 2.00 PAGE 72

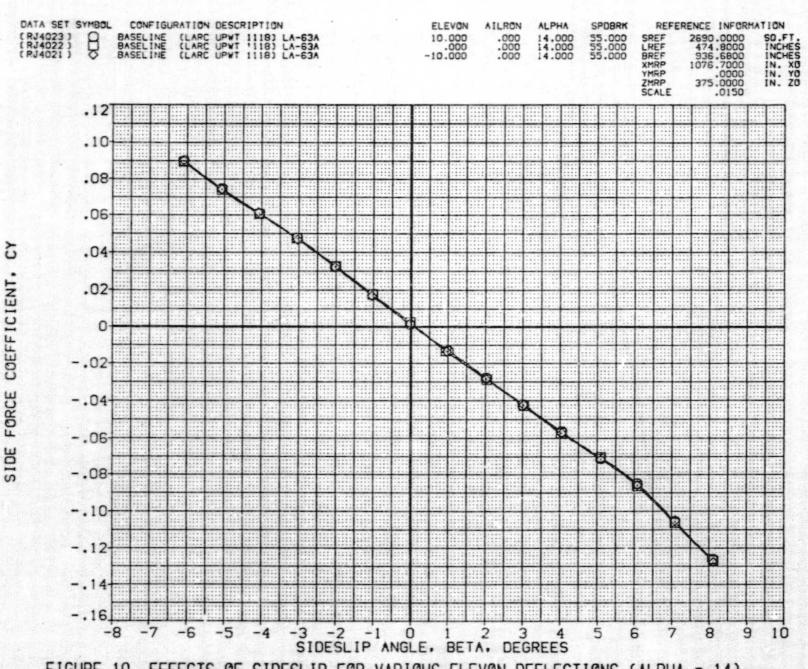
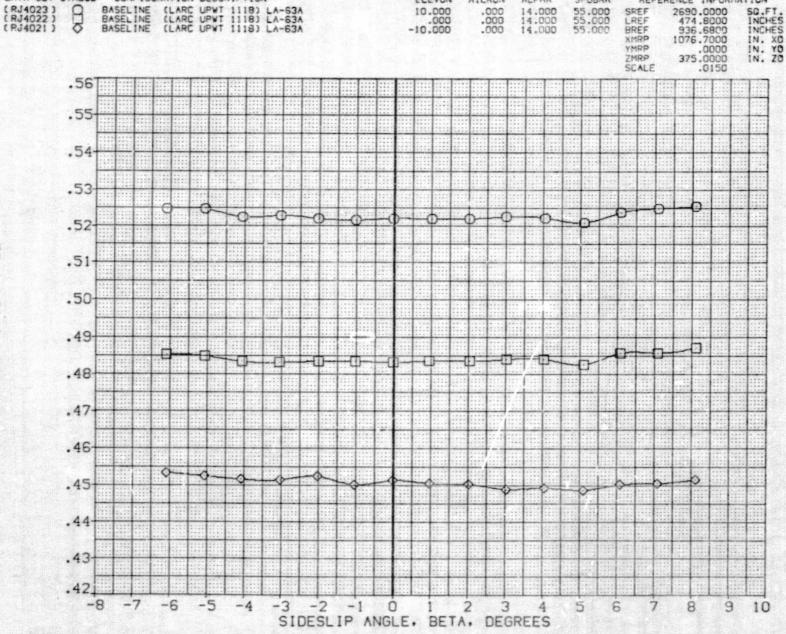


FIGURE 10. EFFECTS OF SIDESLIP FOR VARIOUS ELEVON DEFLECTIONS (ALPHA = 14)

(A)MACH = 2.00

PAGE

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ELEVON AILRON ALPHA

10.000

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LREF

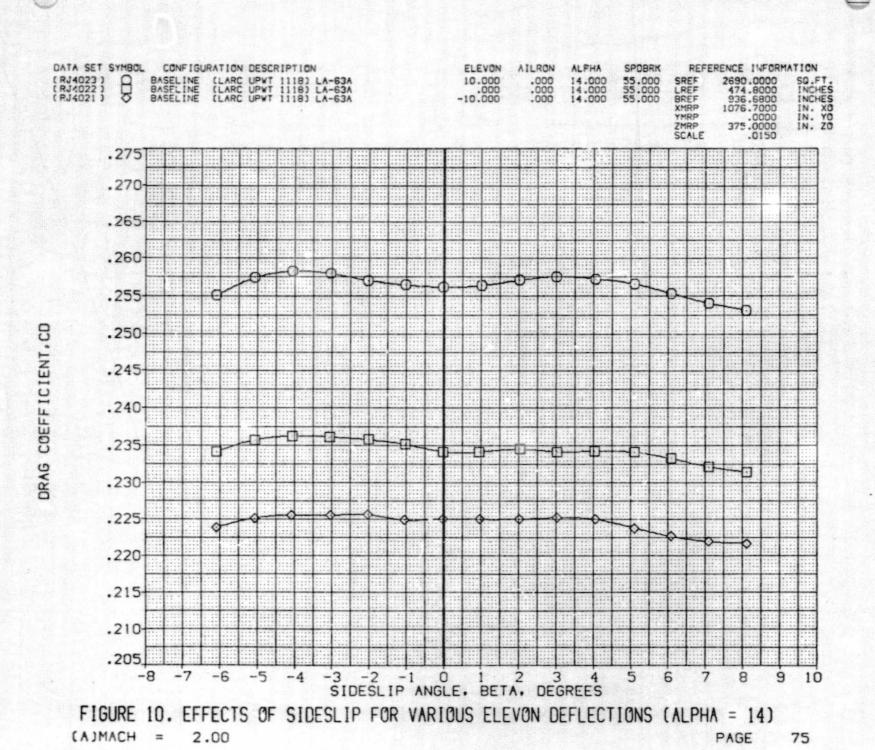
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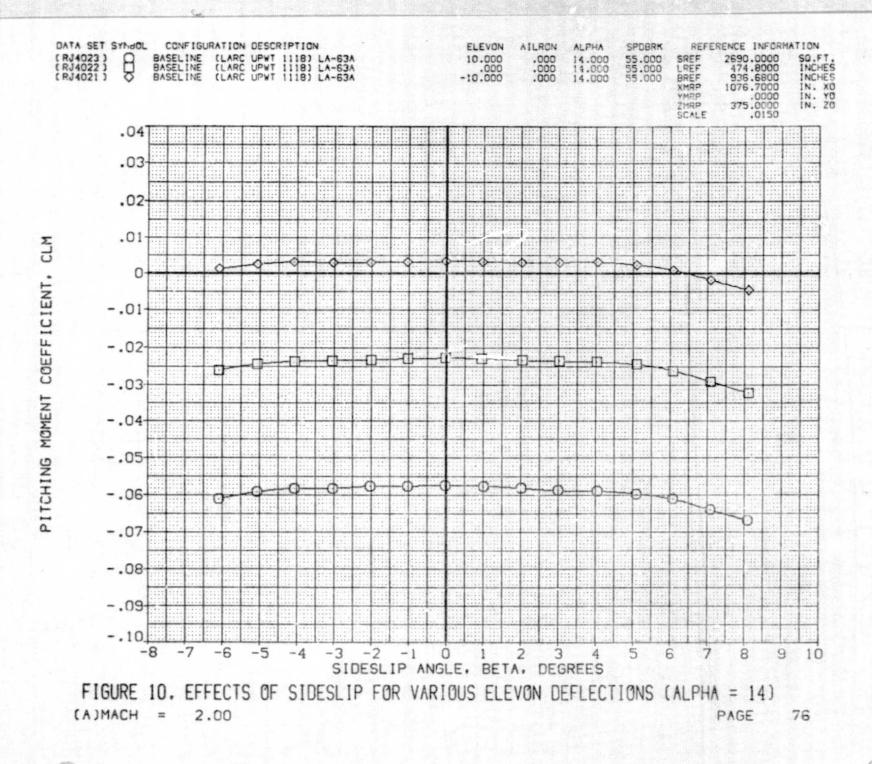
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FIGURE 10. FFFECTS OF SIDESLIP FOR VARIOUS ELEVON DEFLECTIONS (ALPHA = 14) (A)MACH = 2.00PAGE 74





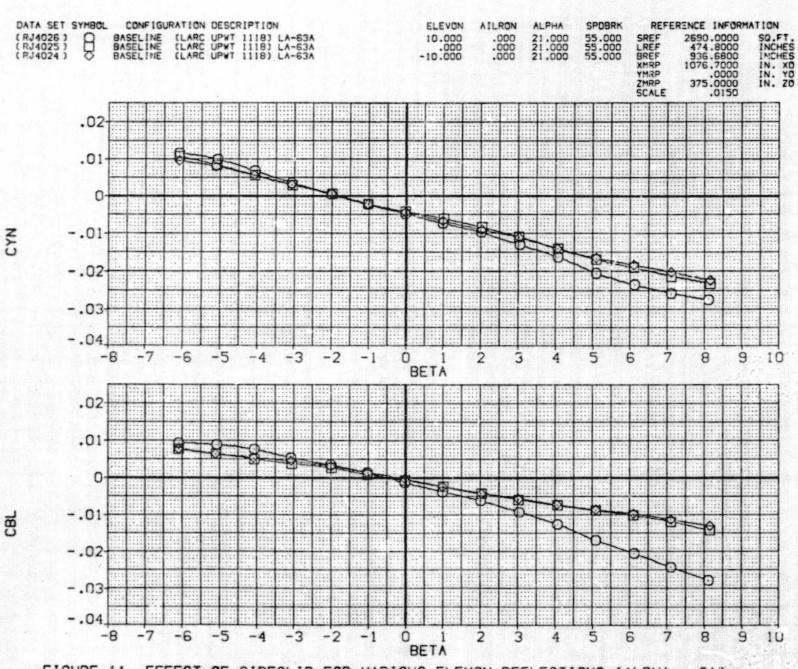
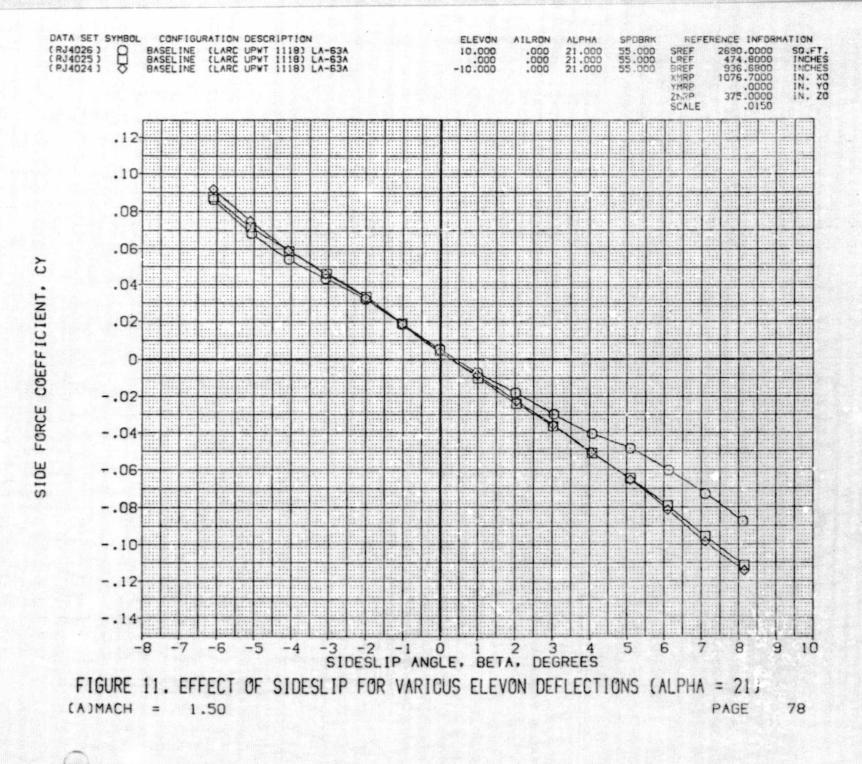
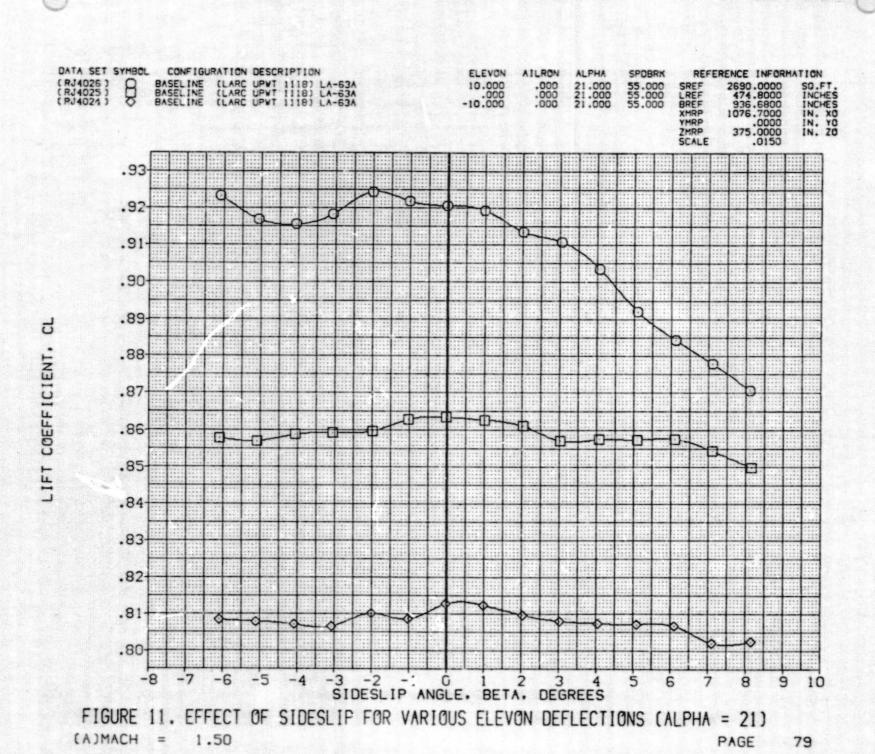


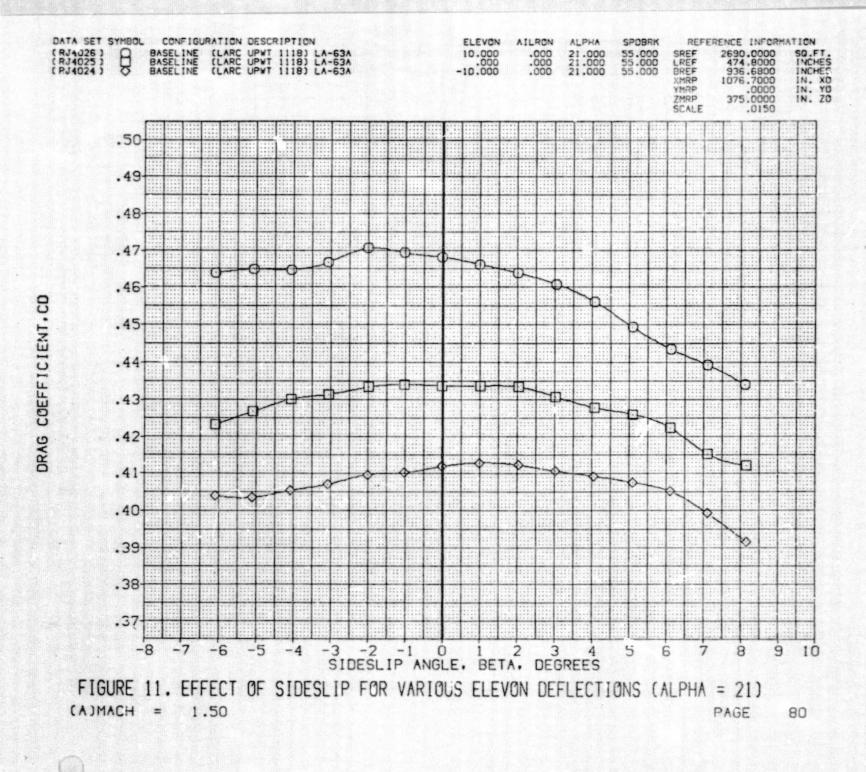
FIGURE 11. EFFECT OF SIDESLIP FOR VARIOUS ELEVON DEFLECTIONS (ALPHA = 21)

(A)MACH = 1.50

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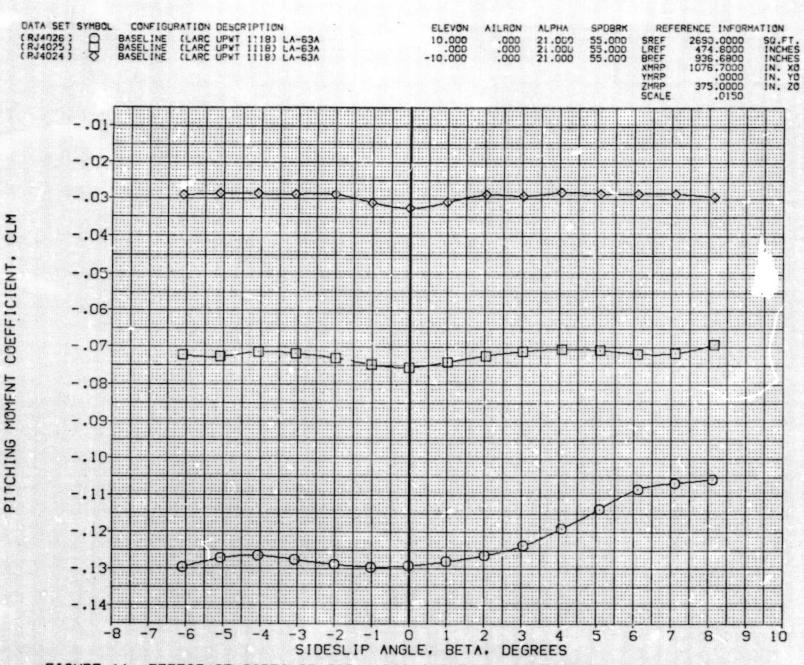


FIGURE 11. EFFECT OF SIDESLIP FOR VARIOUS ELEVON DEFLECTIONS (ALPHA = 21)

(A)MACH = 1.50

PAGE

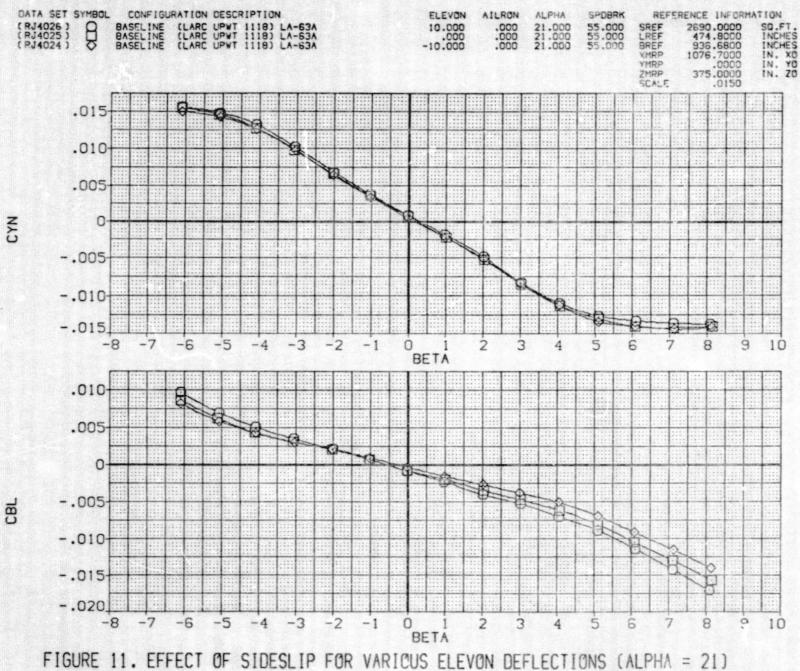


FIGURE 11. EFFECT OF SIDESLIP FOR VARIOUS ELEVON DEFLECTIONS (ALPHA = 21)

(A)MACH = 2.00

PAGE 82

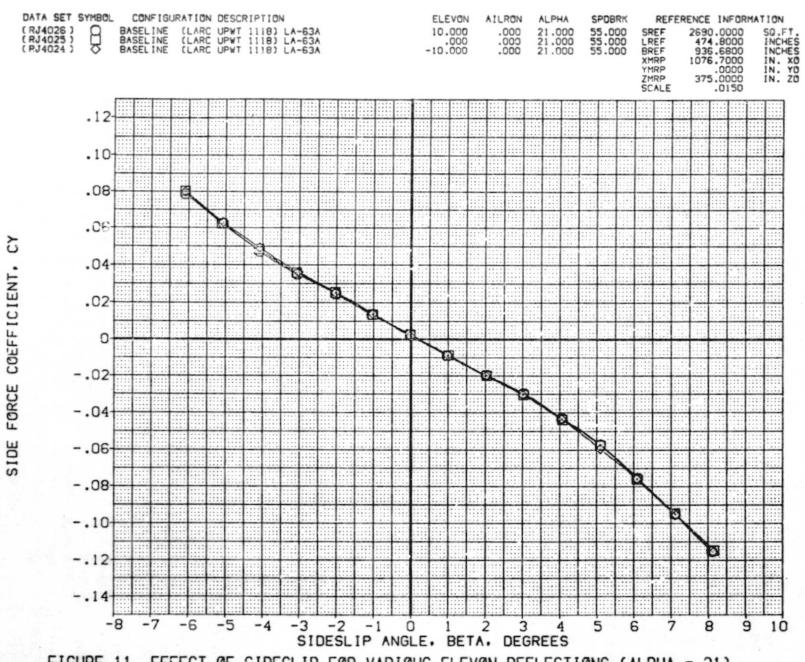


FIGURE 11. EFFECT OF SIDESLIP FOR VARIOUS ELEVON DEFLECTIONS (ALPHA = 21)

(A)MACH = 2.00

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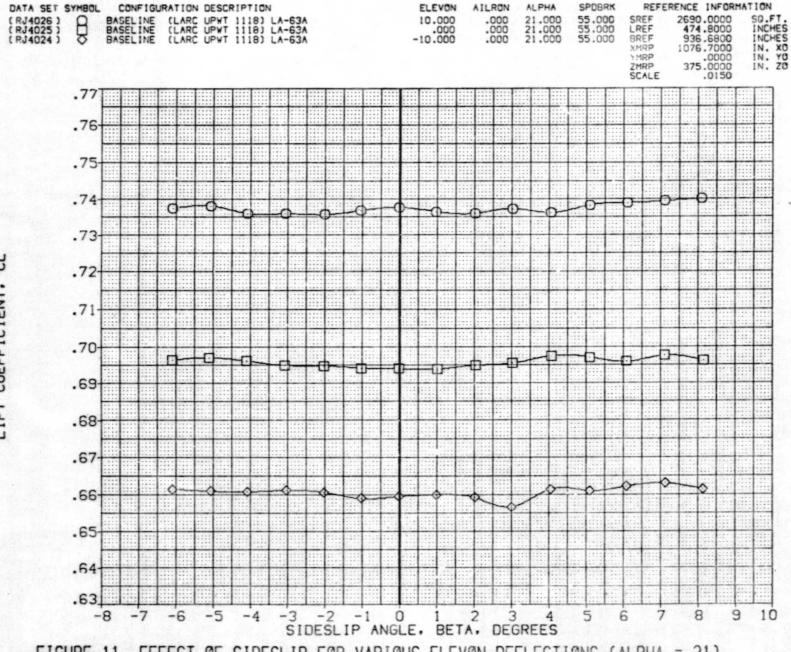
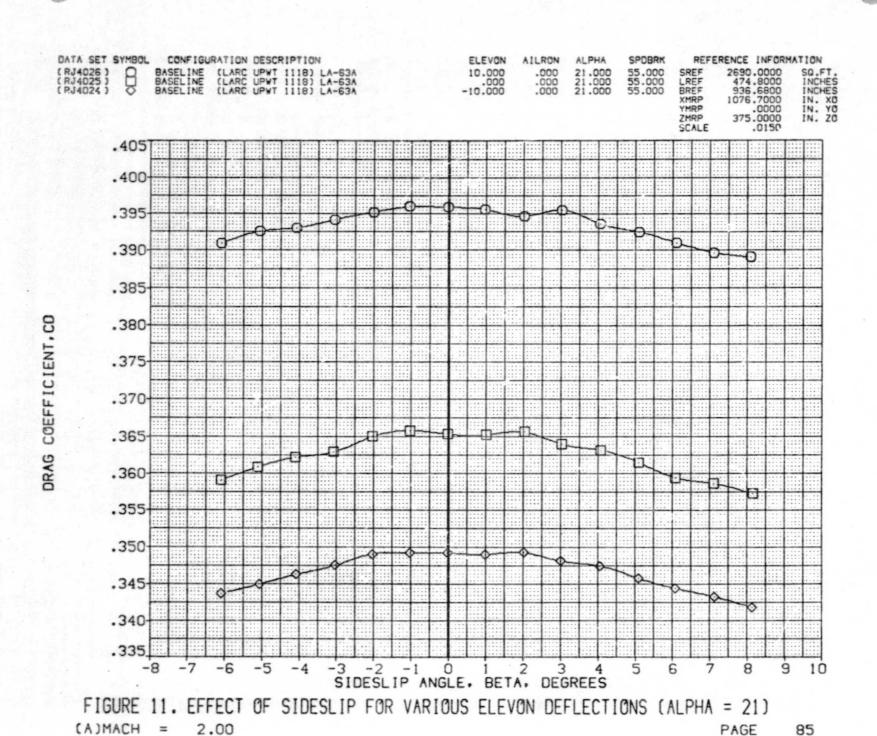
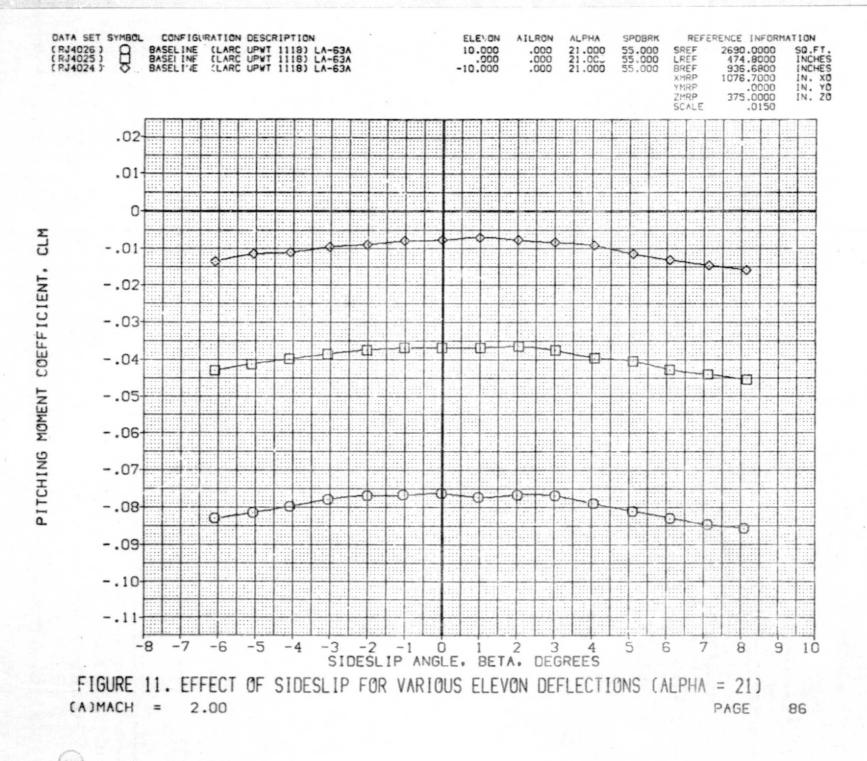


FIGURE 11. EFFECT OF SIDESLIP FOR VARIOUS ELEVON DEFLECTIONS (ALPHA = 21) 84 (A)MACH = 2.00 PAGE





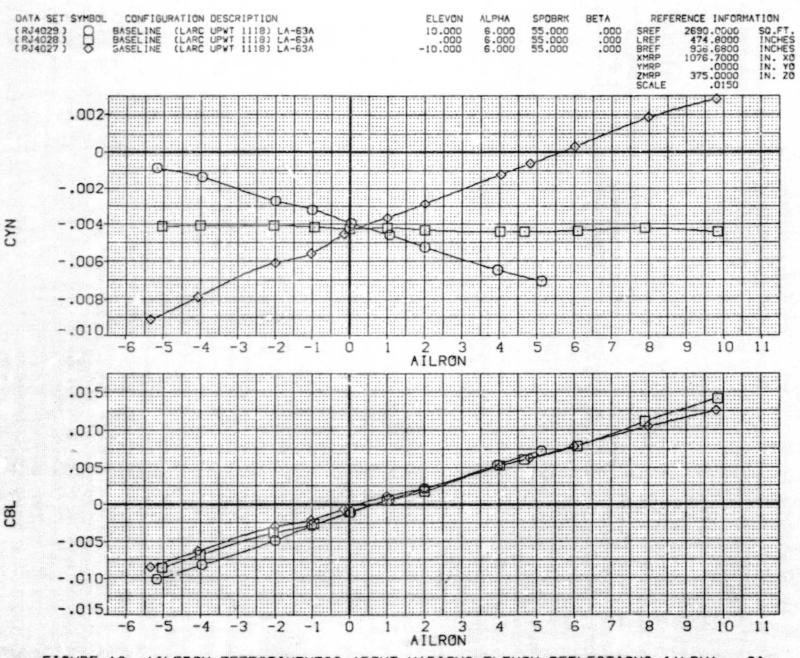
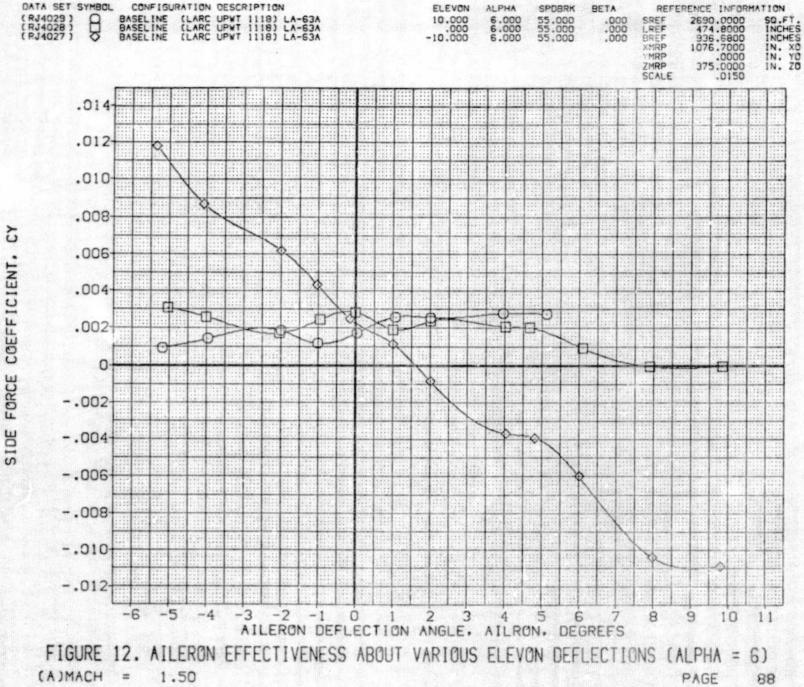


FIGURE 12. AILERON EFFECTIVENESS ABOUT VARIOUS ELEVON DEFLECTIONS (ALPHA = 6)

(A)MACH = 1.50

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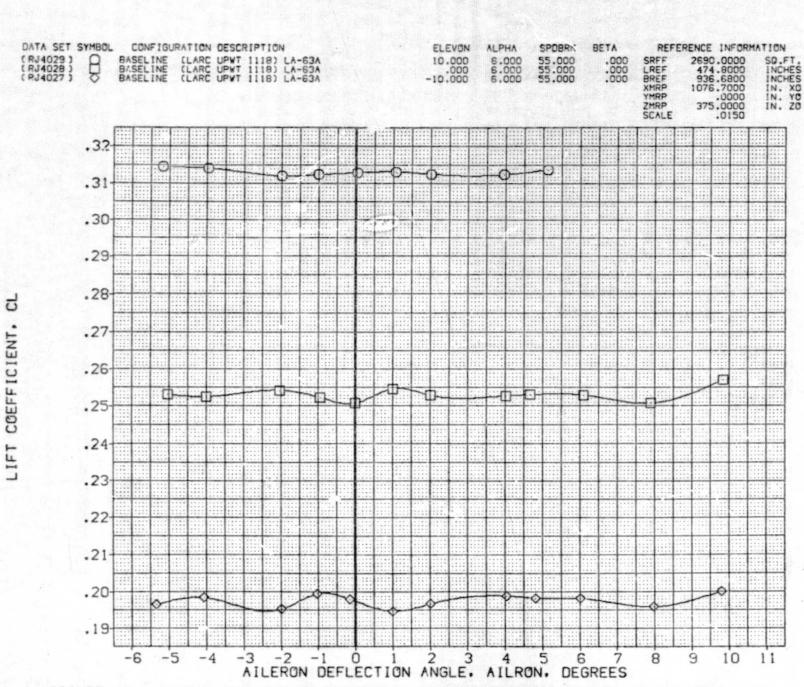
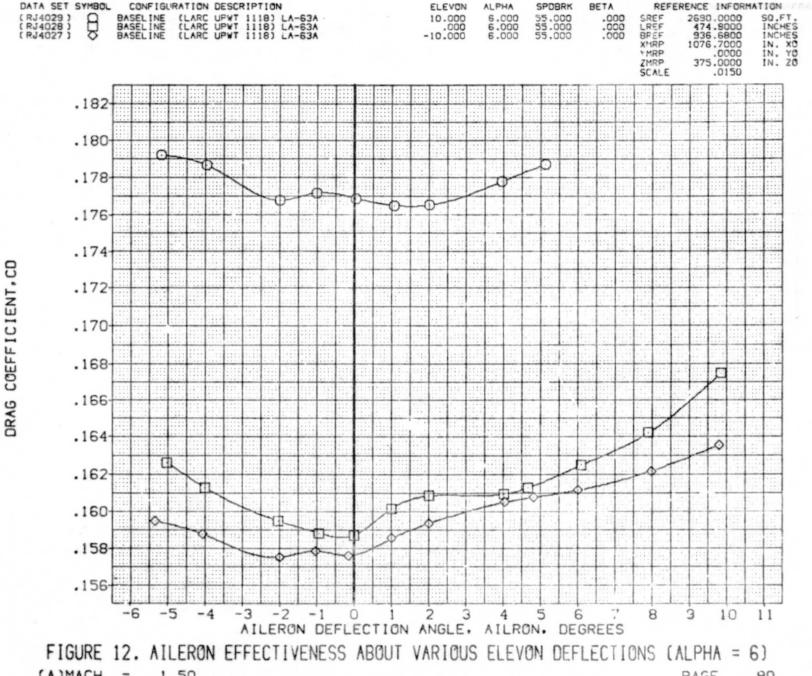


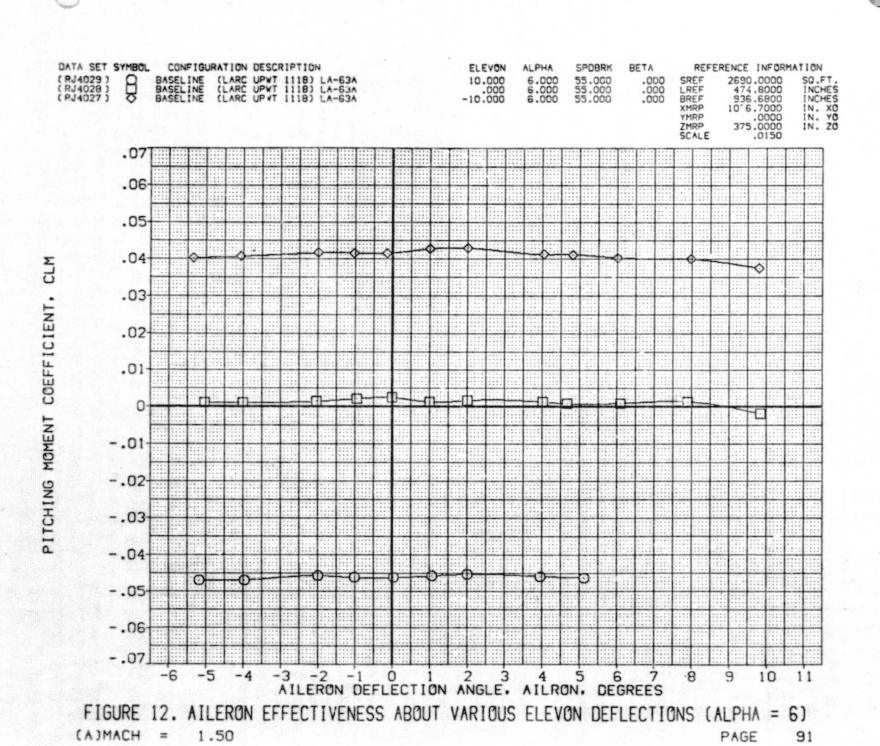
FIGURE 12. AILERON EFFECTIVENESS ABOUT VARIOUS ELEVON DEFLECTIONS (ALPHA = 6)

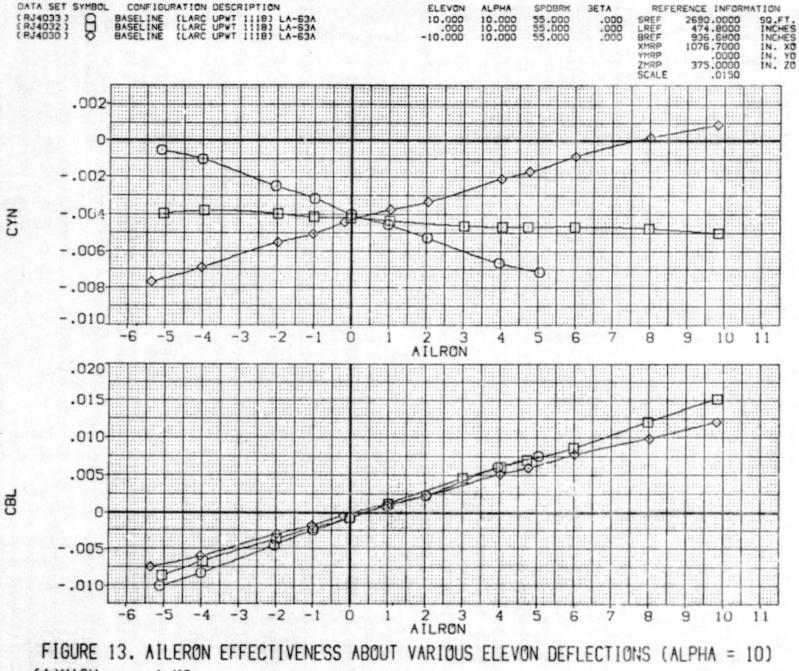
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PAGE 89

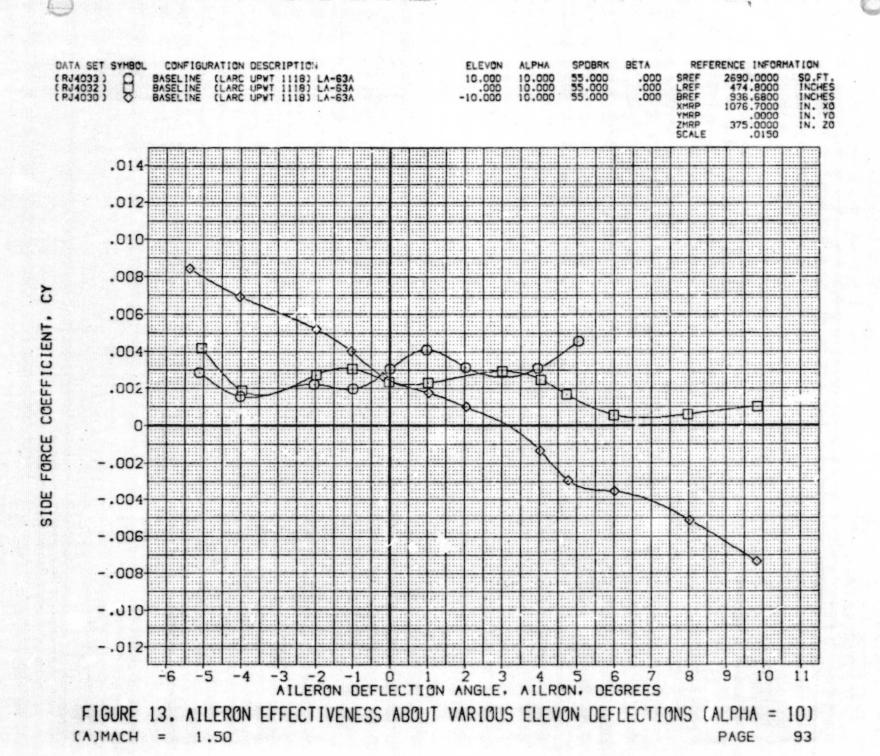


(A)MACH =1.50 PAGE 90





(A)MACH 1.50 92 PAGE



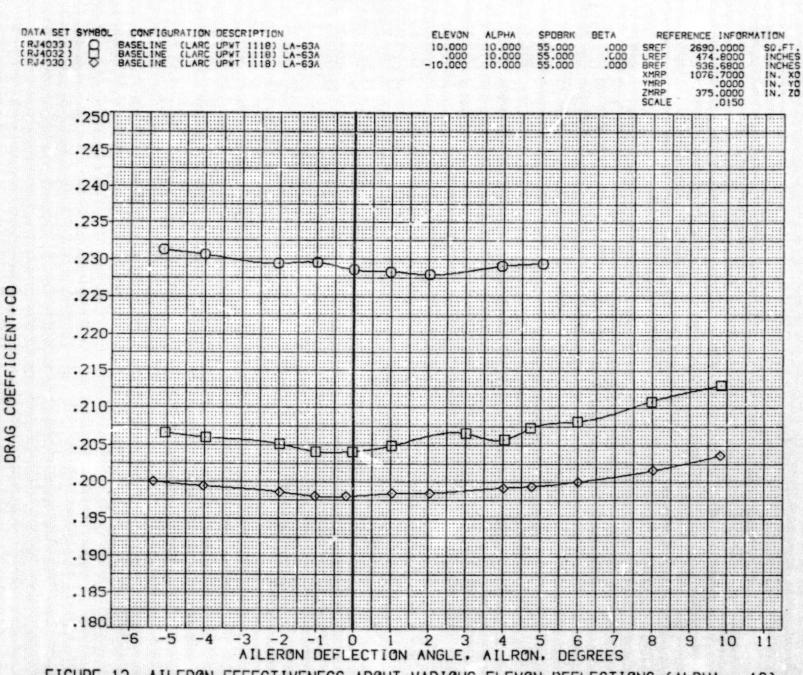
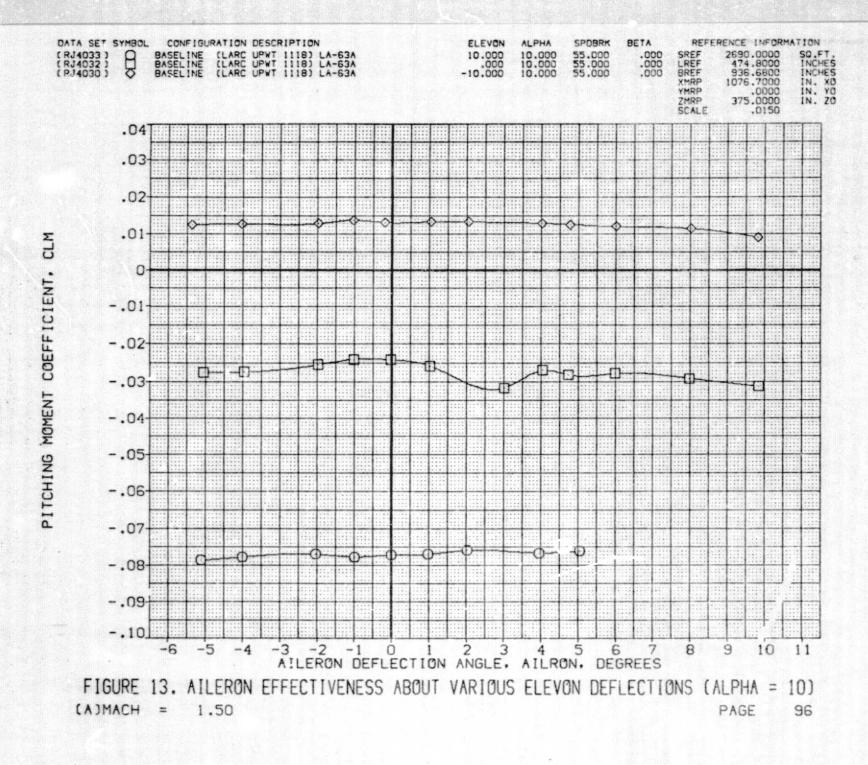


FIGURE 13. AILERON EFFECTIVENESS ABOUT VARIOUS ELEVON DEFLECTIONS (ALPHA = 10)

(A)MACH = 1.50

PAGE 95



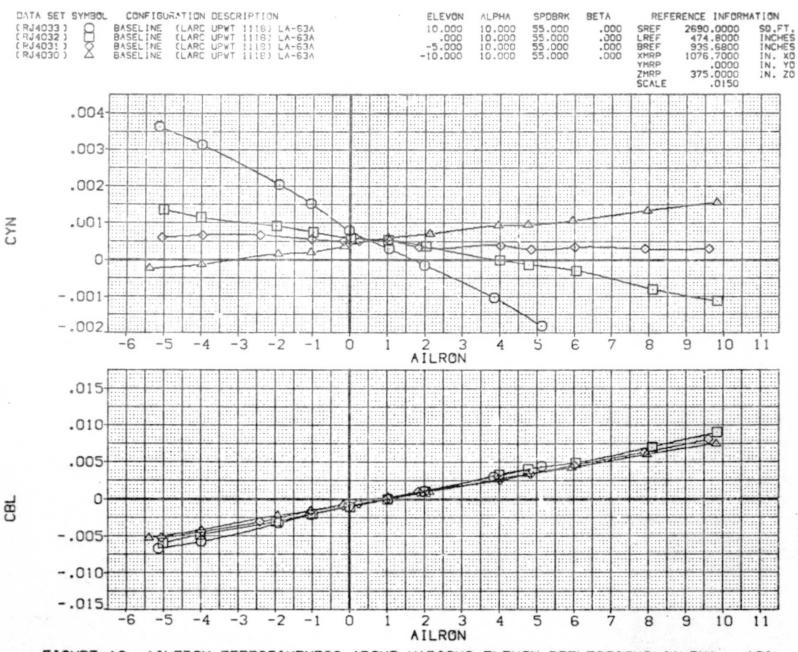
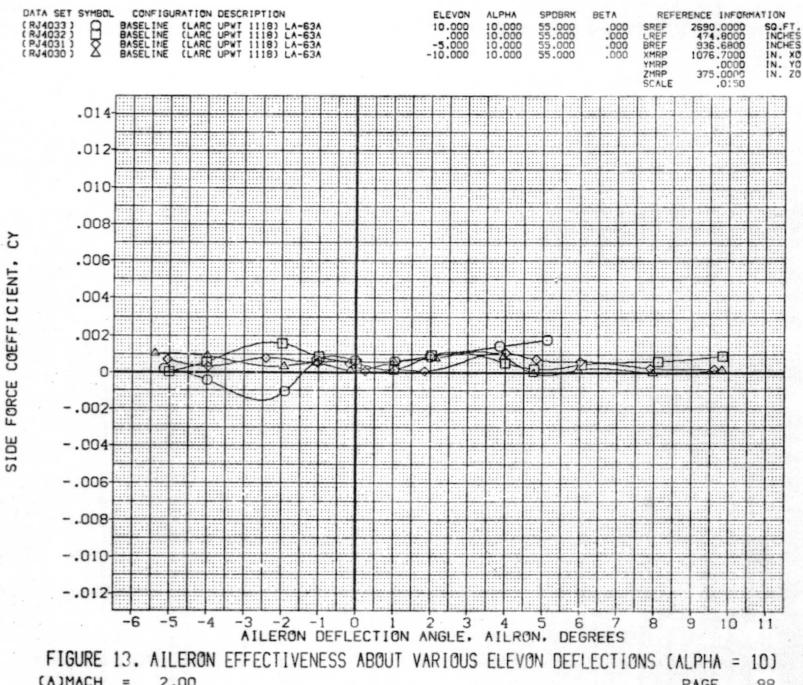


FIGURE 13. AILERON EFFECTIVENESS ABOUT VARIOUS ELEVON DEFLECTIONS (ALPHA = 10)

(A)MACH = 2.00

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(A)MACH = 2.00 PAGE 98

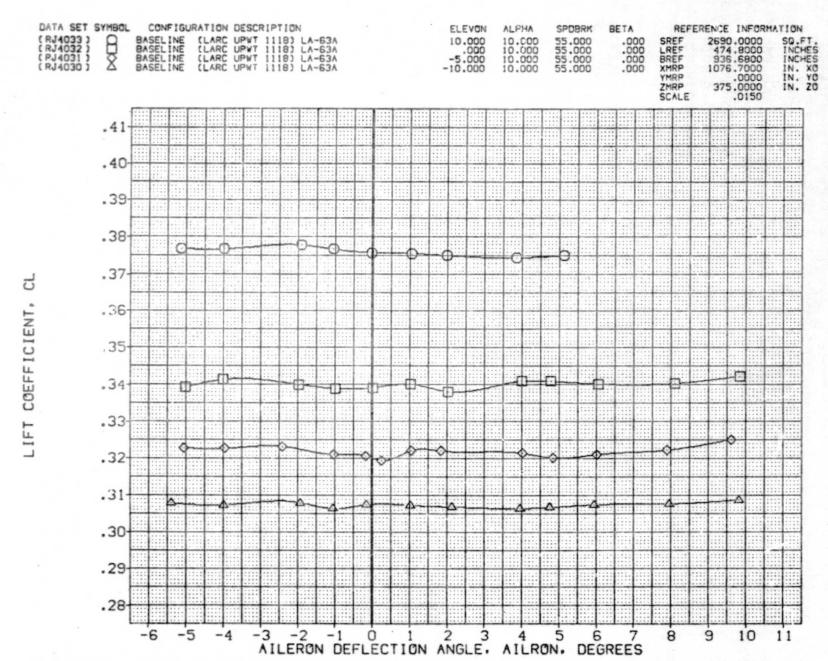
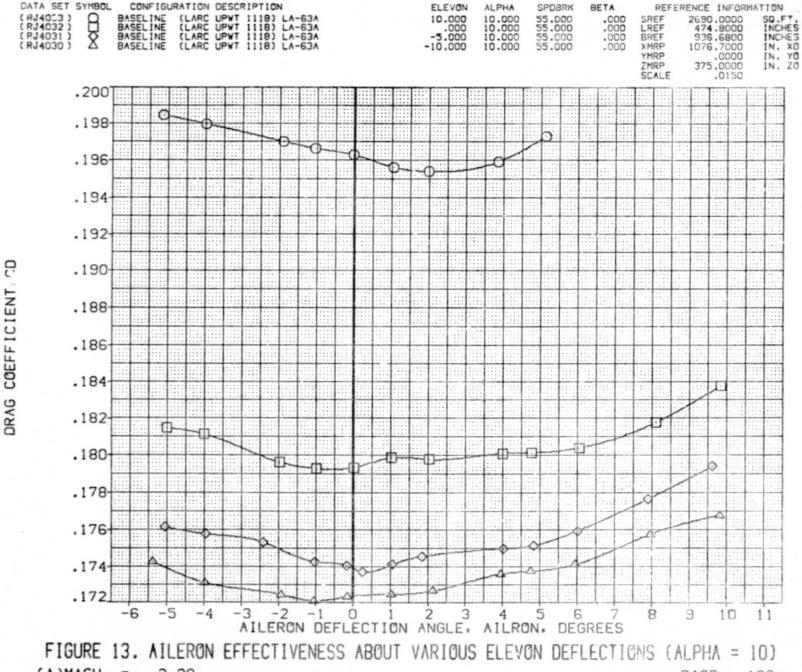


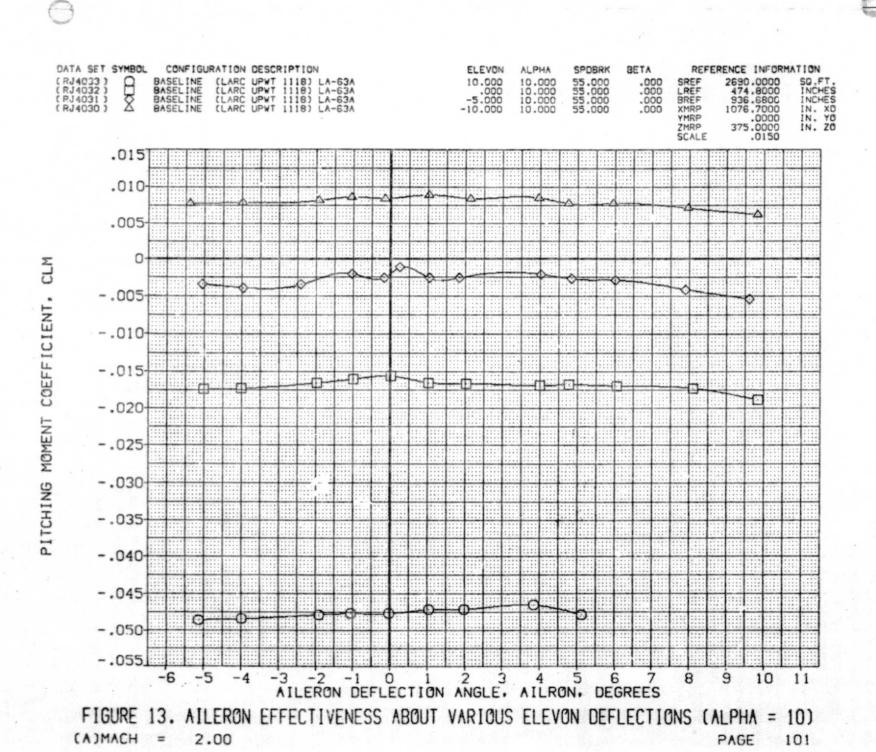
FIGURE 13. AILERON EFFECTIVENESS ABOUT VARIOUS ELEVON DEFLECTIONS (ALPHA = 10)

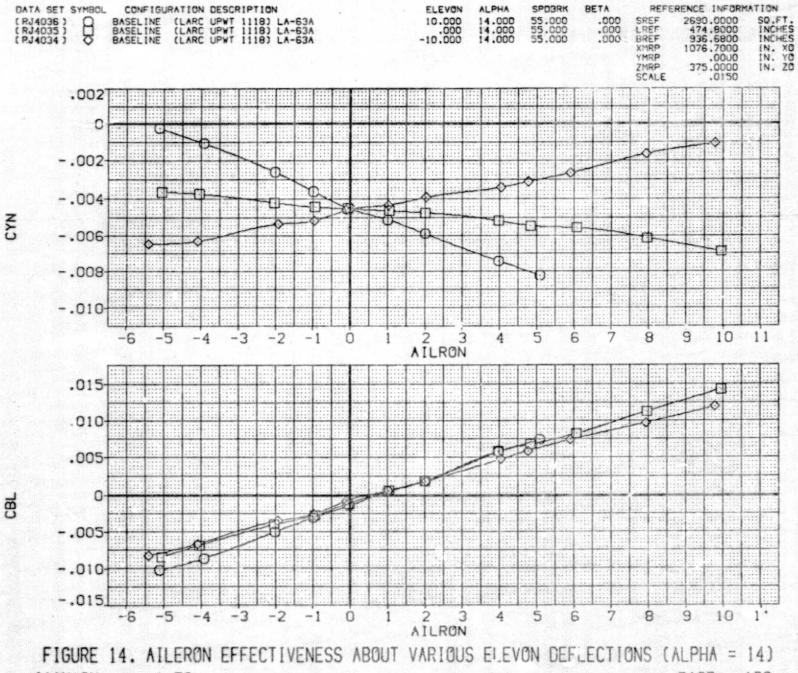
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PAGE 99



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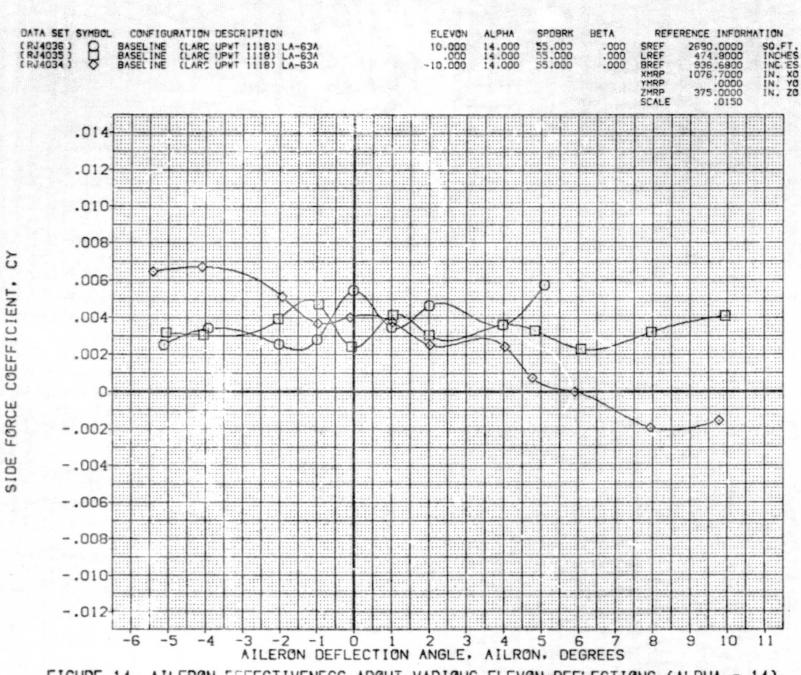


FIGURE 14. AILERON EFFECTIVENESS ABOUT VARIOUS ELEVON DEFLECTIONS (ALPHA = 14)

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ELEVON

ALPHA

SPDBRK

BETA

REFERENCE INFORMATION

DATA SET SYMBOL

CONFIGURATION DESCRIPTION

FIGURE 14. AILERON EFFECTIVENESS ABOUT VARIOUS ELEVON DEFLECTIONS (ALPHA = 14)

(A)MACH = 1.50

PAGE 104

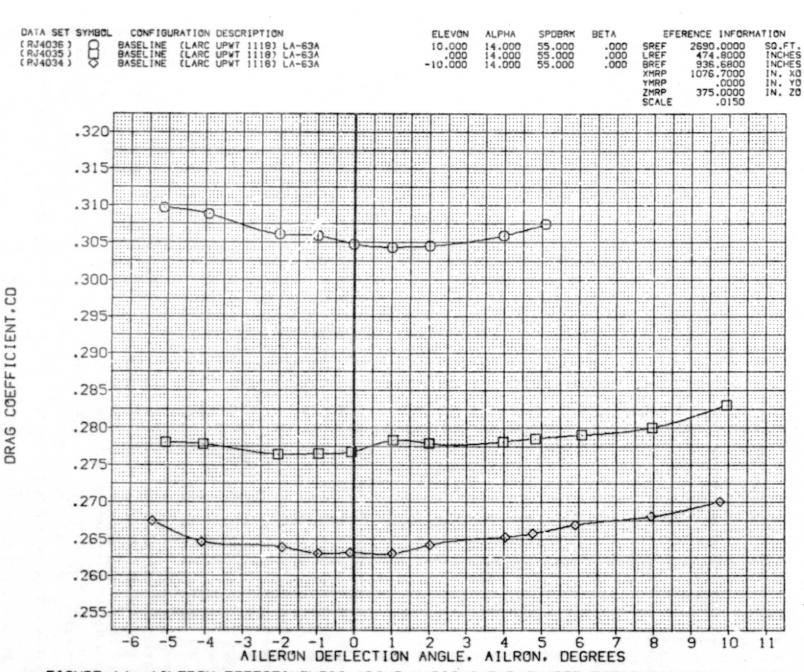


FIGURE 14. AILERON EFFECTIVENESS ABOUT VARIOUS ELEVON DEFLECTIONS (ALPHA = 14)

ALPHA

ELEVON

SPOBRK

BETA

REFERENCE INFORMATION

DATA SET SYMBOL CONFIGURATION DESCRIPTION

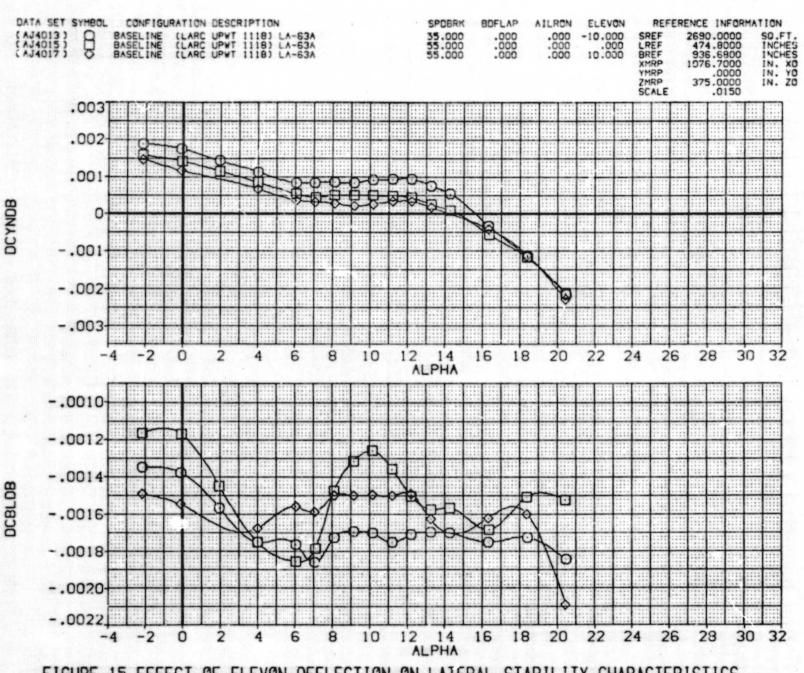
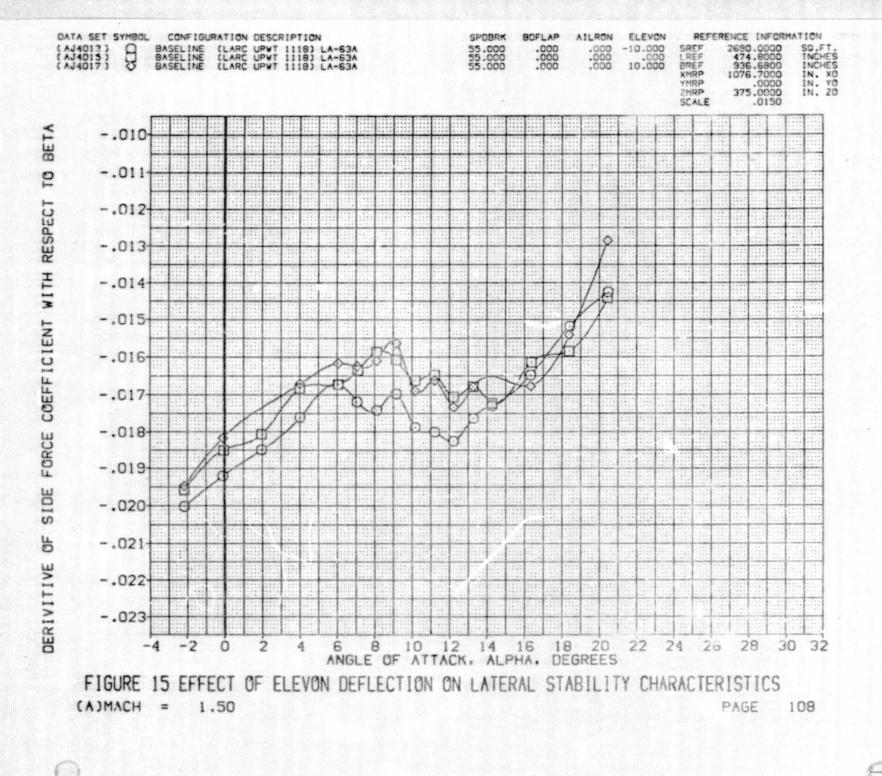


FIGURE 15 EFFECT OF ELEVON DEFLECTION ON LATERAL STABILITY CHARACTERISTICS

(A)MACH = 1.50

PAGE 107



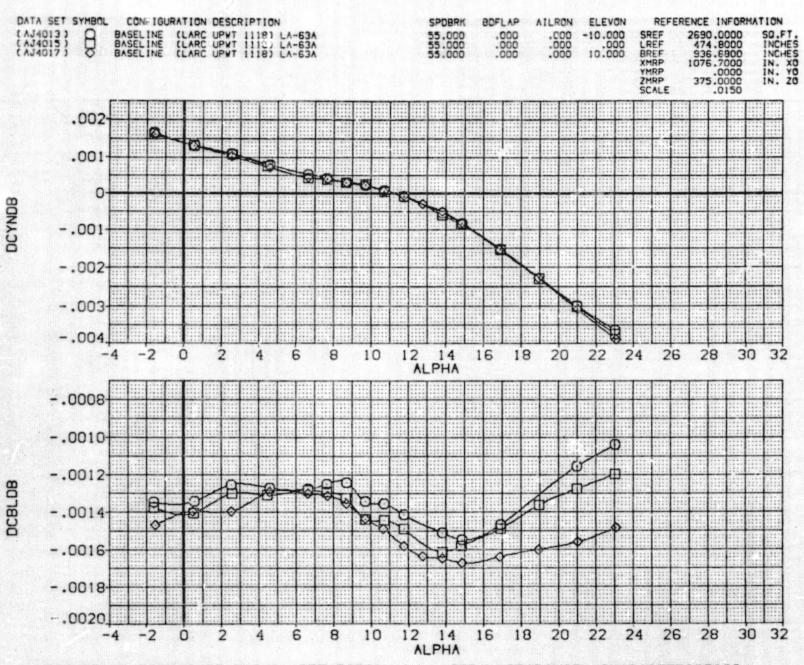
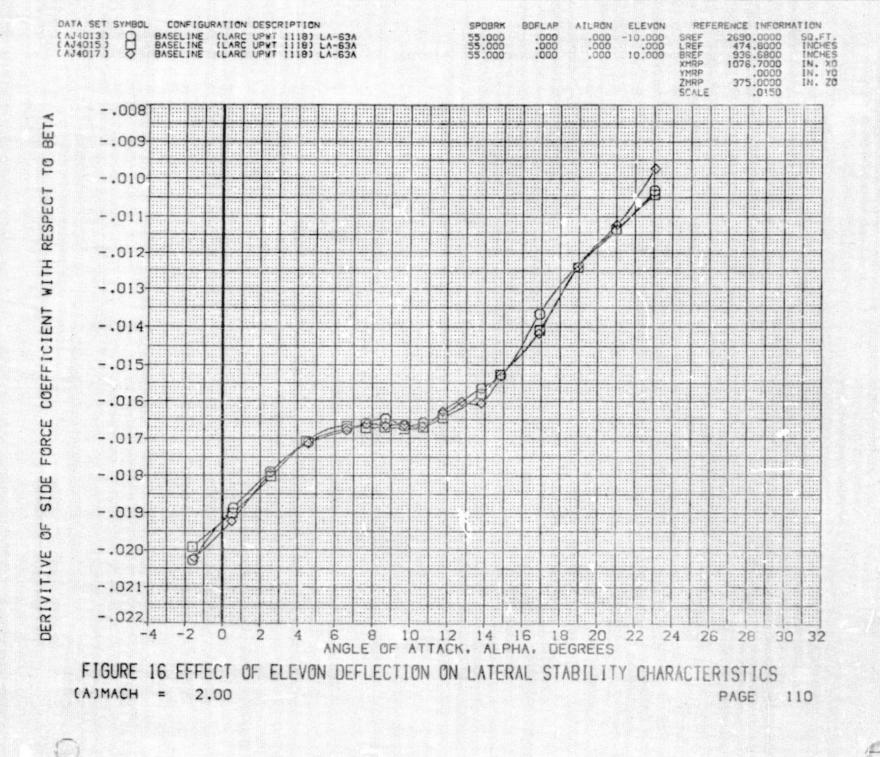


FIGURE 16 EFFECT OF ELEVON DEFLECTION ON LATERAL STABILITY CHARACTERISTICS

[A)MACH = 2.00 PAGE 109



APPENDIX TABULATED SOURCE DATA



Tabulations of plotted data are available from DMS upon request.

LAGSA TABULATED SOURCE DATA

PAGE 1

BASELINE (LARC UPWT 1118) LA-63A

(RJ4001) (28 OCT 75)

REF		7	ALE.	DA	ТΛ
1115	-	VII.	400	Un	• ~

SREF = LREF = BREF = SCALE =	2690.0000 9 474.8000 1 936.6800 1	INCHES YMRP	(7000 IN. X0 0000 IN. Y0 0000 IN. Z0)			BETA = SPOBRK = ELEVON =	.000 55.000 -10.000	BDFLAP = GRITNO = AILRON =	.000 50.000 .000
		RUN NO.	3/ 0	RN/L =	2.00						
MACH 1.500 1.500 1.500 1.500 1.500 1.500 1.500 1.500 1.500 1.500 1.500 1.500	ALPHA -2.132078 1.965 4.013 6.064 7.095 8.114 9.141 12.170 11.201 12.224 13.255 14.277 16.330 18.396 20.456	CN1975609426 .01046 .10905 .20817 .2F-63 .3L-76 .36034 .41179 .46255 .51014 .55856 .60896 .70648 .80650	CA .15255 .15003 .14613 .14114 .13541 .13373 .13190 .12970 .12690 .12410 .12153 .11886 .11625 .11625 .11625	CLM .11131 .09100 .07218 .05565 .04095 .03329 .02623 .01930 .01162 .00463 00621 01109 02070 02834 03351	CBL000310002500016000110002800027000280001900052000520005200067000400000300048	CYN0021000212002330023800257002710028200259002830027700280002810026100265	CY .09021 00018 .00123 .00070 .00228 .00150 .00171 .00173 .00149 .00249 .00249 .00201 .00217 .00263 .00263	CL 19175 09406 .00545 .09891 .19270 .24212 .28705 .33516 .38291 .42963 .47284 .51643 .56148 .6466 .73169 .80952	CD .15980 .15016 .14640 .14843 .15664 .16489 .17416 .18530 .19762 .21159 .22679 .24376 .26284 .30688 .35554 .41000	L/D -1.19995 6939 .03721 .66637 1.23016 1.46834 1.64822 1.80878 1.93765 2.03053 2.08498 2.11857 2.13621 2.10592 2.05796	ELEVON -9.85389 -9.84425 -9.86326 -9.87573 -9.88820 -9.89748 -9.91322 -9.94461 -9.98830 -9.99148 -9.98254 -10.07868 -10.10361
		RUN NO.	36/ 0	RN/L =	2.00	.00203	.00403	.0053E	.41000	1.37441	10.10301
MACH 2.000 2.000 2.000 2.000 2.000 2.000 2.000 2.000 2.000 2.000 2.000 2.000 2.000	ALPHA -1.514 .537 2.560 4.572 6.639 7.656 8.673 9.709 10.726 11.942 12.236 13.811 14.817 16.913 18.932 20.976 23.045	CN1398005832 .02189 .10056 .17943 .21652 .25563 .29342 .33177 .37771 .38918 .45101 .48940 .57464 .65807 .73972	CA .13726 .13310 .13004 .12538 .12127 .11917 .11690 .11455 .11239 .10953 .10883 .10466 .10239 .09860 .09439 .09047	.CLM .06048 .04931 .03843 .02798 .01842 .01508 .01222 .01037 .00898 .00719 .00584 .00388 .00035 -00396 -00711	CBL0004500042000530003700040000380004000041000320003200046000460001800004	CYN - 00012 - 00003 - 00018 - 00002 - 00010 - 00010 - 00012 - 00014 - 00009 - 00009 - 00009 - 00000 - 00000	CY001170005800003 .00053 .00021 .0009900005 .00124 .00076 .00130 .00192 .00110 .00119 .00164 .00209 .00251	CL 13612 05956 .01606 .09025 .16920 .19872 .23507 .26990 .30505 .34688 .35728 .41298 .44695 .52110 .59185 .65831	CD .14091 .13254 .13089 .13299 .14120 .14696 .15411 .16239 .17217 .18532 .18885 .20930 .22414 .26151 .30280 .34928 .40151	L/D9660044938 .12267 .67857 1.16291 1.35222 1.52536 1.66203 1.77181 1.87181 1.87181 1.89189 1.97312 1.99402 1.99269 1.95460 1.88478 1.80614	ELEVON -9.88855 -9.90411 -9.93188 -10.00351 -10.02260 -9.98830 -10.02200 -10.00077 -10.04685 -10.10291 -10.05622 -10.18348 -10.06241 -10.07806 -10.10910 -10.14669 -10.26819

(SJ4001) (28 OCT 75)

REFERENCE DATA

		2690.0000 SQ.FT.			IN.	XO	BETA	-	.000	BDFLAP =	.000
LREF		474.8000 INCHES	YMRP	.0000	IN.	YO	SPDBRK	-	55.000	GRITNO =	50.000
BREF	-	936.6800 INCHES	ZMRP	375.0000	IN.	ZO	ELEVON	=	-10.000	AILRON =	.000
SCALE		.0150									

	RUN NO.	3/ 0 F	N/L = 2.00					
MACH	ALPHA	BETA	Q(PSF)	AILRON	ELEV-L	ELEV-R	CAC	CAB
1.500	-2.132	.00319	476.65770	15925	-10.01314	-9.69464	.01561	.03539
1.500	078	.00346	476.61479	14342	-9.98767	-9.70083	.01568	.03507
1.500	1.965	.00285	476.70060	15624	-10.01950	-9.70702	.01556	.03401
1.500	4.013	.00336	476.78641	15014	-10.02587	-9.72559	.01520	.03286
1.500	6.064	.00272	476.65770	14404	-10.03223	-9.74415	.01497	.03191
1.500	7.095	.00347	476.78641	13475	-10.03223	-9.76273	.01516	.03054
1.500	8.114	.00330	476.70060	13475	-10.03223	-9.76273	.01551	.03013
1.500	9.141	.00343	476.65770	13811	-10.05133	-9.77512	.01572	.03000
1.500	10.170	.00327	476.70360	13854	-10.08316	-9.80607	.01586	.03013
1.500	11.201	.00225	476.74350	12032	-10.10862	-9.86798	.01602	.03057
1.500	12.224	.00279	476.82931	12351	-10.11499	-9.86798	.01521	.03086
1.500	13.255	.00385	476.61479	15790	-10.14045	-9.82464	.01645	.03128
1.500	14.277	.00329	476.78641	15790	-10.14045	-9.82464	.01670	.03173
1.500	16.330	.00217	476.65770	11766	-10.14045	-9.90512	.01777	.03363
1.500	18.396	.00243	476.65770	07450	-10.15318	-10.00417	.01909	.03846
1.500	20.456	.00129	476.65770	06230	-10.16591	-10.04132	.02037	.04055
	RUN NO.	36/ 0 R	N/L = 2.00					
MACH	ALPHA							
		BETA	D(PSF)	ATT RON	FIFV-I	FI FV-R	CAC	CAR
		BETA - 01820	Q(PSF)	AILRON - 16915	ELEV-L	ELEV-R	CAC	CAB
2.000	-1.514	01820	475.58620	16915	-10.05770	-9.71940	.01029	.02169
2.000	-1.514 .537	01820 01836	475.58620 475.47884	16915 15995	-10.05770 -10.05-06	-9.71940 -9.74416	.01029	.02169
2.000	-1.514 .537 2.560	01820 01836 01850	475.58620 475.47884 475.58620	16915 15995 12581	-10.05770 -10.05936 -10.05770	-9.71940 -9.74416 -9.80607	.01029 .01076 .01114	.02169
2.000	-1.514 .537 2.560 4.572	01820 01836 01850 01907	475.58620 475.47884 475.58620 475.47884	16915 15995 12581 08601	-10.05770 -10.05406 -10.05770 -10.03952	-9.71940 -9.74416 -9.80607 -9.91750	.01029 .01076 .01114 .01119	.02169 .02212 .02184 .02178
2.000 2.000 2.000 2.000	-1.514 .537 2.560 4.572 6.639	01820 01836 01850 01907 01867	475.58620 475.47884 475.58620 475.47884 475.51463	16915 15995 12581 08601 08000	-10.05770 -10.05706 -10.05770 -10.03952 -10.10225	-9.71940 -9.74416 -9.80607 -9.91750 -9.94226	.01029 .01076 .01114 .01119 .01120	.02169 .02212 .02184 .02178 .02150
2.000 000.5 000.5 000.5 000.5	-1.514 .537 2.560 4.572 6.639 7.656	01820 01836 01850 01907 01867 01906	475.58620 475.47884 475.58620 475.47884 475.51463 475.65777	16915 15995 12581 08601 08000 12032	-10.05770 -10.05406 -10.05770 -10.03952 -10.10225 -10.10862	-9.71940 -9.74416 -9.80607 -9.91750 -9.94226 -9.86798	.01029 .01076 .01114 .01119 .01120	.02169 .02212 .02184 .02178 .02150 .02125
2.000 2.000 2.000 2.000 2.000 2.000	-1.514 .537 2.560 4.572 6.639 7.656 8.673	01820 01836 01850 01907 01867 01906 01843	475.58620 475.47884 475.58620 475.47884 475.51463 475.65777 475.51463	16915 15995 12581 08601 08000 12032 06116	-10.05770 -10.05406 -10.05770 -10.03952 -10.10225 -10.10862 -10.08316	-9.71940 -9.74416 -9.80607 -9.91750 -9.94226 -9.86798 -9.96084	.01029 .01076 .01114 .01119 .01120 .01111	.02169 .02212 .02184 .02178 .02150 .02125 .02084
2.000 2.000 2.000 2.000 2.000 2.000 2.000	-1.514 .537 2.560 4.572 6.639 7.656 8.673 9.709	01820 01836 01850 01907 01867 01906 01843 01925	475.58620 475.47884 475.58620 475.47884 475.51463 475.65777 475.51463 475.62199	16915 15995 12581 08601 08000 12032 06116 11422	-10.05770 -10.05406 -10.05770 -10.03952 -10.10225 -10.10862 -10.08316 -10.11499	-9.71940 -9.74416 -9.80607 -9.91750 -9.94226 -9.86798 -9.96084 -9.88655	.01029 .01076 .01114 .01119 .01120 .01111 .01100	.02169 .02212 .02184 .02178 .02150 .02125 .02084 .02065
2.000 2.000 2.000 2.000 2.000 2.000 2.000	-1.514 .537 2.560 4.572 6.639 7.656 8.673 9.709	01820 01836 01850 01907 01867 01906 01843 01925 01879	475.58620 475.47884 475.58620 475.47884 475.51463 475.65777 475.51463 475.62199 475.44306	16915 15995 12581 08601 08000 12032 06116 11422 04268	-10.05770 -10.05406 -10.05770 -10.03952 -10.10225 -10.10862 -10.08316 -10.11499 -10.08952	-9.71940 -9.74416 -9.80607 -9.91750 -9.94226 -9.86798 -9.96084 -9.88655 -10.00417	.01029 .01076 .01114 .01119 .01120 .01111 .01100 .01095	.02169 .02212 .02184 .02178 .02150 .02125 .02084 .02065
2.000 2.000 2.000 2.000 2.000 2.000 2.000 2.000	-1.514 .537 2.560 4.572 6.639 7.656 8.673 9.709 10.726 11.942	01820 01836 01850 01907 01867 01906 01843 01925 01879 01932	475.58620 475.47884 475.58620 475.47884 475.51463 475.65777 475.51463 475.62199 475.44306 475.62199	16915 15995 12581 08601 08000 12032 06116 11422 04268 01207	-10.05770 -10.05506 -10.05770 -10.03952 -10.10225 -10.10862 -10.08316 -10.11499 -10.08952 -10.11499	-9.71940 -9.74416 -9.80607 -9.91750 -9.94226 -9.86798 -9.96084 -9.88655 -10.00417 -10.09084	.01029 .01076 .01114 .01119 .01120 .01111 .01100 .01095 .01109	.02169 .0212 .02184 .02178 .02150 .02125 .02084 .02065 .02087
2.000 2.000 2.000 2.000 2.000 2.000 2.000 2.000	-1.514 .537 2.560 4.572 6.639 7.656 8.673 9.709 10.726 11.942 12.236	01820 01836 01850 01907 01867 01906 01843 01925 01932 01932	475.58620 475.47884 475.58620 475.47884 475.51463 475.65777 475.51463 475.62199 475.44306 475.62199 475.44306	16915 15995 12591 08601 08000 12032 06116 11422 04268 01207 03967	-10.05770 -10.05+06 -10.05770 -10.03952 -10.10225 -10.10862 -10.08316 -10.11499 -10.08952 -10.11499 -10.09589	-9.71940 -9.74416 -9.80607 -9.91750 -9.94226 -9.86798 -9.96084 -9.88655 -10.00417 -10.09084 -10.01655	.01029 .01076 .01114 .01119 .01120 .01111 .01100 .01095 .01109 .01121	.02169 .0212 .02184 .02178 .02150 .02125 .02084 .02065 .02087 .02109
2.000 2.000 2.000 2.000 2.000 2.000 2.000 2.000 2.000	-1.514 .537 2.560 4.572 6.639 7.656 8.673 9.709 10.726 11.942 12.236	01820 01836 01850 01907 01906 01843 01925 01879 01933 01963	475.58620 475.47884 475.58620 475.47884 475.51463 475.65777 475.51463 475.62199 475.44306 475.62199 475.44306 475.58620	16915 15995 12581 08601 08000 12032 06116 11422 04268 01207 03967 .06213	-10.05770 -10.05406 -10.05770 -10.05952 -10.10225 -10.10862 -10.08316 -10.11499 -10.08952 -10.11499 -10.09589 -10.12135	-9.71940 -9.74416 -9.80607 -9.91750 -9.94226 -9.86798 -9.96084 -9.88655 -10.00417 -10.09084 -10.01655 -10.24561	.01029 .01076 .01114 .01119 .01120 .01111 .01100 .01095 .01109 .01121 .01130	.02169 .0212 .02184 .02178 .02150 .02125 .02084 .02065 .02087 .02130 .02272
2.000 2.000 2.000 2.000 2.000 2.000 2.000 2.000 2.000 2.000	-1.514 .537 2.560 4.572 6.639 7.656 8.673 9.709 10.726 11.942 12.236 13.811 14.817	01820 01836 01850 01907 01867 01906 01943 01925 01933 01962 01938	475.58620 475.47884 475.58620 475.47884 475.51463 475.51463 475.65777 475.51463 475.62199 475.44306 475.62199 475.44306 475.58620 475.59620 475.55041	16915 15995 12581 08601 08000 12032 06116 11422 04268 01207 03967 03967 03348	-10.05770 -10.05406 -10.05770 -10.03952 -10.10225 -10.10862 -10.08316 -10.11499 -10.09589 -10.12135 -10.09589	-9.71940 -9.74416 -9.80607 -9.91750 -9.94226 -9.86798 -9.96084 -9.88655 -10.00417 -10.09065 -10.01655 -10.24561 -10.02893	.01029 .01076 .01114 .01119 .01120 .01111 .01100 .01095 .01109 .01121 .01130	.02169 .0212 .02184 .02178 .02150 .02125 .02084 .02065 .02087 .02109 .02130 .02772
2.000 2.000 2.000 2.000 2.000 2.000 2.000 2.000 2.000 2.000	-1.514 .537 2.560 4.572 6.639 7.656 8.673 9.709 10.726 11.942 12.236 13.811 14.817 16.913	01820 01836 01850 01907 01867 01906 01943 01932 01963 01963 01938 01970	475.58620 475.47884 475.58620 475.47884 475.51463 475.51463 475.62199 475.62199 475.62199 475.62199 475.544306 475.5620 475.58620 475.55041	16915 15995 12581 08601 08000 12032 06116 11422 04268 01207 03967 03967 03348 03056	-10.05770 -10.05406 -10.05770 -10.03952 -10.10265 -10.10862 -10.11499 -10.08952 -10.11499 -10.09589 -10.12135 -10.09589 -10.10862	-9.71940 -9.74416 -9.80607 -9.91750 -9.94226 -9.86798 -9.96084 -9.88655 -10.00417 -10.09084 -10.01655 -10.24561 -10.02893 -10.04751	.01029 .01076 .01114 .01119 .01120 .01111 .01100 .01095 .01109 .01121 .01130 .01158 .01195	.02169 .0212 .02184 .02178 .02150 .02125 .02084 .02065 .02087 .02109 .02130 .02335
2.000 2.000 2.000 2.000 2.000 2.000 2.000 2.000 2.000 2.000 2.000 2.000 2.000	-1.514 .537 2.560 4.572 6.639 7.656 8.673 9.709 10.726 11.942 12.236 13.811 14.817 16.932	01820 01836 01807 01907 01867 01906 01843 01925 01932 01932 01932 01938 01937	475.58620 475.47884 475.58620 475.47884 475.51463 475.65777 475.51463 475.62199 475.62199 475.44306 475.5209 475.55041 475.55041	16915 15995 12591 08601 08000 12032 06116 11422 04268 01207 03967 .06213 03346 030566	-10.05770 -10.05+06 -10.05770 -10.03952 -10.10225 -10.10862 -10.08316 -10.11499 -10.08952 -10.11499 -10.09589 -10.12135 -10.09589 -10.10862 -10.11499	-9.71940 -9.74416 -9.80607 -9.91750 -9.94226 -9.86798 -9.96084 -9.88655 -10.00417 -10.09084 -10.01655 -10.24561 -10.02893 -10.04751 -10.10322	.01029 .01076 .01114 .01119 .01120 .01111 .01100 .01095 .01109 .01121 .01130 .01158 .01195 .011244	.02169 .0212 .02184 .02178 .02150 .02125 .02084 .02065 .02087 .02109 .02130 .0272 .02335 .02365 .02465
2.000 2.000 2.000 2.000 2.000 2.000 2.000 2.000 2.000 2.000 2.000 2.000	-1.514 .537 2.560 4.572 6.639 7.656 8.673 9.709 10.726 11.942 12.236 13.811 14.817 16.913	01820 01836 01850 01907 01867 01906 01943 01932 01963 01963 01938 01970	475.58620 475.47884 475.58620 475.47884 475.51463 475.51463 475.62199 475.62199 475.62199 475.62199 475.544306 475.5620 475.58620 475.55041	16915 15995 12581 08601 08000 12032 06116 11422 04268 01207 03967 03967 03348 03056	-10.05770 -10.05406 -10.05770 -10.03952 -10.10265 -10.10862 -10.11499 -10.08952 -10.11499 -10.09589 -10.12135 -10.09589 -10.10862	-9.71940 -9.74416 -9.80607 -9.91750 -9.94226 -9.86798 -9.96084 -9.88655 -10.00417 -10.09084 -10.01655 -10.24561 -10.02893 -10.04751	.01029 .01076 .01114 .01119 .01120 .01111 .01100 .01095 .01109 .01121 .01130 .01158 .01195	.02169 .0212 .02184 .02178 .02150 .02125 .02084 .02065 .02087 .02109 .02130 .02335



LASSA TABULATED SOURCE DATA

PAGE 3

BASELINE (LARC UPWT 1118) LA-63A

(RJ4002) (28 OCT 75)

REFERENCE DATA

SREF = LREF = BREF = SCALE =	474.8000	SQ.FT. XMRP INCHES YMRP INCHES ZMRP	0	000 IN. XO 000 IN. YO 000 IN. ZO				BETA * SPOBRK * ELEVON *	.000 55.000 -5.000	BDFLAP = GRITNO = AILRON =	.000 50.000 .000
		RUN NO.	58/ 0	RN/L =	2.00						
MACH	ALPHA	CN	CA	CLM	CBL	CYN	CY	CL	CD	L/D	ELEVON
2.000	-1.532	12097	.13324	.04756	00038	.00064	00013	11737	.13643	86027	-4.99607
2.000	.499	04069	.13049	.03703	00039	.00054	.00011	04182	.13013	32139	-5.09565
2.000	2.577	.04018	.12782	.02639	00058	.00049	.00097	.03439	.12949	. 26557	-5.08353
2.000	4.584	.11783	.12371	.01624	00038	.00070	.00088	.10757	.13273	.81038	-5.20477
2.000	6.654	.19592	.11926	.00695	00033	.00063	.00113	.18078	.14116	1.28074	-5.33831
2.000	7.654	.23234	.11742	.00461	00041	.00052	.00188	.21463	.14732	1.45691	-5.54993
2.000	8.697	.27262	.11553	.00155	00031	.00057	.00176	.25201	.15542	1.62146	-5.43135
2.000	9.731	.30933	.11371	.00053	00041	.00057	.00121	.28566	. 16435	1.73805	-5.61201
2.000	10.719	. 34698	.11114	00140	00028	.00055	.00219	. 32025	.17373	1.84336	-5.49936
2.000	11.748	. 38418	.10875	00202	00054	.00054	.00226	. 35399	. 18469	1.91670	-5.65544
2.000	12.808	.42608	.10637	00396	00015	.00054	.00152	.39190	.19818	1.97751	-5.55817
2.000	13.810	.46369	.10347	00457	00037	.00059	.00189	.42559	.21117	2.01543	-5.68338
2.000	14.847	.50753	.10145	00693	00033	.00070	.00242	.45459	.22811	2.03667	-5.60901
2.000	16.892	.59087	.09755	0!157	00026	.00065	.00254	.53703	.26503	2.02631	-5.61733
2.000	18.933	.67334	.09368	01579	00029	.00077	.00328	.60652	.30708	1.97509	-5.66677
5.000	20.969	. 75538	.09013	01921	.00000	.00052	.00286	.67310	. 35449	1.89877	-5.70064
2.000	24.452	.90186	.08057	02797	00003	.00040	.00368	.78763	.44664	1.76343	-5.77323

(SJ4002) (28 OCT 75)

PARAMETRIC DATA

REFERENCE DATA

LREF	:	2690.0000 474.8000 936.6800 .0150	INCHES	YMRP		.0000	IN.	YO	BETA = SPDBRK = ELEVON =	55.000	BDFLAP GRITNO AILRON		.000 50.000 .000
------	---	--	--------	------	--	-------	-----	----	--------------------------	--------	----------------------------	--	------------------------

	RUN NO.	58/ 0 F	N/L = 5.00					
MACH	ALPHA	BETA	Q(PSF)	AILRON	ELEV-L	ELEV-R	CAC	CAB
2.000	-1.532	00075	475.15678	19828	-5.19435	-4.79779	.01068	.02170
2.000	.499	00077	475.12099	13690	-5 23255	-4.95875	.01100	.02104
2.000	2.577	00127	475.12099	16811	-5.25164	-4.91542	.01135	.02082
2.000	4.584	00143	475.01364	08506	-5.28984	-5.11971	.01133	.02091
2.000	6.654	00139	+75.22835	.01664	-5.32167	-5.35496	.01115	.02105
2.000	7.654	00168	475.12099	. 14551	-5.40442	-5.69544	.01107	.02089
2.000	8.697	00170	475.26413	. 09695	-5.33440	-5.52830	.01117	.02083
2.000	9.731	00137	475.04942	.19486	-5.41715	-5.80688	.01120	.02060
2.000	10.719	00200	475.26413	.17132	-5.32803	-5.37068	.01116	.02095
2.000	11.748	00206	475.19256	.23192	-5.42352	-5.89736	.01138	.02177
2.000	12.808	00161	475.15678	.23014	-5.32803	-5.78830	.01154	.02177
2.000	13.810	00194	475.33570	.25350	-5,42988	-5.93688	.01158	.02215
2.000	14.847	00246	475.19256	. 18549	-5.42352	-5.79450	.01184	.02255
2.000	16.892	00249	475.22835	. ?6384	-5.35349	-5.88116	.01219	.02346
2.000	18.933	00311	475.15678	. 31964	-5.34713	-5.98641	.01274	.02475
2.000	20.969	00239	475.12099	. 36624	-5.33440	-6.06689	.01330	.02557
2.000	24.452	00260	475.08521	.33699	-5.43625	-6.11022	.01379	.02660

2690.0000 SQ.FT.

LAGSA TABULATED SOURCE DATA

PAGE (28 OCT 75) (RJ4003)

.000

BDFLAP =

PARAMETRIC DATA

.000

BETA

.76032

.41932

1.8:322

-.47273

.00321

-.00020

BASELINE (LARC UPHT 1118) LA-63A

REFERENCE DATA

1076.7000 IN. XO

	LREF = BREF = SCALE =	474.8000 IN C36.6800 IN .0150			0000 IN. YO				SPDBRK = ELEVON =	55.000	GRITNO = AILRON =	50.000
			RUN NO.	1/ 0	RN/L =	2.00 .						
	MACH	ALPHA	CN	CA	CLM	CBL	CYN	CY	CL	CD	L/D	ELEVON
	1.500	-2.139	14068	.14616	.06849	00003	00086	.00055	13513	.15131	89305	.06436
	1.500	092	04067	.14365	.04891	.00005	00117	.00159	04044	. 14372	28137	.02995
	1.500	1.971	.06552	.13982	.03024	.00021	00091	.00055	.06067	.14199	.42730	.02076
	1.500	4.018	. 16375	.13510	.01469	00011	00115	.00126	. 15388	.14624	1.05223	.02686
	1.500	6.068	.26582	.13101	00055	.00003	00126	.00111	.25048	.15838	1.58151	10306
	1.500	7.084	.31401	.12947	00721	.00027	00118	.00074	.29564	.16721	1.76811	16187
	1.500	8.120	.36237	.12803	01330	.00031	00130	.00155	. 34065	.17793	1.91449	17708
	1.500	9.142	.41280	.12569	02040	00004	00141	.00099	.38758	.18968	2.04331	.00484
	1.500	10.175	.46079	.12389	02671	.00021	00148	.00236	.43166	.20334	2.12290	.01112
	1.500	11.199	.51191	.12201	03336	.00034	00147	.00172	.47846	.21911	2.18365	01992
	1.500	15.553	.56006	.12040	03953	.00030	00148	.00221	.52188	.23625	2.20905	05131
	1.500	13.239	.61036	.11860	04603	.00038	00141	.00215	.56698	. 25524	2.22137	03928
	1.500	14.281	.66209	.11656	05222	00020	00151	.00221	.61287	.27629	2.21827	05794
	1.500	16.378	.76341	.11186	06245	00020	00130	.00410	.70088	. 32259	2.17270	12647
	1.500	18.388	.86098	.10753	07034	.00004	00149	.00328	.78310	. 37364	2.09587	08366
	1.500	20.447	.96026	.10372	07809	.00023	00140	.00338	.86353	.43263	1.99598	09012
	1.500	22.500	1.04760	.09575	07714	00117	00186	.00824	.93121	.48937	1.90288	13114
			RUN NO.	34/ 0	RN/L =	2.00						
	MACH	ALPHA	CN	CA	CLM	CBL	CYN	CY	CL	CD	L/D	ELEVON
	5.000	-1.526	10106	.13274	.03482	00053	00016	00088	09749	.13539	72007	.06923
	2.000	.520	02076	.12972	.02389	00065	.00002	00097	02194	.12952	16936	.03828
	5.000	2.570	.05802	.12710	.01347	00066	00019	00015	.05226	.12957	.40336	.02900
	2.000	4.583	.13523	.12379	.00367	00051	00016	.00007	.12491	.13420	.93078	.01369
	2.000	6.660	.21312	.12096	00511	00050	00012	.00000	.19765	. 14486	1.35438	.00750
3	2.000	7.670	.24821	.11959	00805	00059	00017	.00103	.53005	.15165	1.51682	28234
~	2.000	8.690	.28819	.11795	01081	00052	00028	.00032	.26707	.16014	1.66770	03945
2	2.000	9.732	.32435	.11551	01217	00076	00024	.00067	.30016	.16867	1.77955	30392
7	2.000	10.699	.36201	.11328	01427	00088	00031	.00109	. 33469	.17852	1.87485	18595
E	2.000	11.742	.40338	.11079	01581	00076	00021	.00153	.37240	.13056	1.95427	32249
(J)	2.000	12.797	.44268	.10806	01726	00070	00028	.00195	.40775	.20343	2.00431	23866
	2.000	14.838	.52344	.10595	02080	00067	00016	.00167	.44001	.21643	2.03301	32559
	2.000	16.890	.60891	.09903	02591	00080	00016	.00195	47971	.23323	2.05682	25732
	2.000	18.967	.69211	.09503	02591	00082	00027	.00215	.55387	.27167	2.03874	29782
	2.000	20.990	.77724	.09280	03514	00043	00014	.00231	.62329	.31585	1.97342	40712
	2.000	23.033	.86377	.08840	04026	00039	00012	.00321	.76032	.41932	1.81322	47273
		THE REP. P. LEWIS CO., LANSING	a server or r	TO SECURE A SEC.			· UUUE U		. / 1311-36	. 7 . 7 . 7	1 . 0 . 36 6	. 7 /

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SCALE .

BASELINE (LARC UPWT 1118) LA-63A

(SJ4003) (28 OCT 75)

PARAMETRIC DATA

REFERENCE DATA

.0150

SREF = 2690,0000 SQ.FT. XMRP = 1076,7000 IN. X0

LREF = 474,8000 INCHES YMRP = .0000 IN. Y0

BREF = 936,6800 INCHES ZMRP = 375,0000 IN. ZO

BREF = 0000 BDFLAP = .000

SPDBRK = 55,000 GRIINO = 50,000

ELEVON = .000 AILRON = .000

	RUN NO.	1/0 F	N/L = 2.00					
MACH 1.500 1.500 1.500 1.500 1.500 1.500 1.500 1.500 1.500 1.500 1.500 1.500 1.500	ALPHA -2.139092 1.971 4.018 6.068 7.084 8.120 9.142 10.175 11.199 12.223 13.239 14.281 16.378 18.388 20.447 22.500	BETA .00109 .00088 .00113 .001148 .00164 .00127 .00177 .00197 .00134 .00101 .00093 .00103 .00054 .00019	Q(PSF) 475.62801 475.24188 475.79963 475.97124 476.44318 476.40027 476.61479 476.57189 476.4608 476.40027 476.48608 476.44318 476.27156 476.27156 476.27156	AILRON .11388 .12282 .13838 .12591 .26220 .32101 .35532 .12247 .12256 .14723 .14679 .10930 .12159 .15830 .07730 .06465	ELEV-L .17824 .15278 .15914 .15914 .15914 .17824 .17824 .12731 .09548 .07006 .06386 .03183 00637 02546 08275	ELEV-R0495309286117620990536525482875324011762111431671519810148581795328477160961547717953	CAC .01525 .01522 .01500 .01487 .01569 .01569 .01598 .01608 .01616 .01623 .01641 .01670 .01739 .01825 .01929	CAB .02858 .02758 .2734 .7367 .02864 .02911 .02931 .03938 .03037 .03030 .03052 .03112 .03364 .03634 .03762
	RUN NO.	34/ 0 F	N/L = 2.00					
MACH 2.000 2.000 2.000 2.000 2.000 2.000 2.000 2.000 2.000 2.000 2.000	ALPHA -1.526 .520 2.570 4.583 6.660 7.670 8.690 9.732 10.699 11.742 12.737 13.713 14.338 16.890	BETA 01795 01819 01841 01852 01843 01899 01870 01899 01935 01954 01955 01975	Q(PSF) 473.90429 477.84067 475.65777 475.65777 475.91364 474.94207 474.83471 475.01364 474.79892 474.76314 474.54843 474.79892 474.79892 474.79892 474.62000	AILRON .01352 .04447 .05376 .08179 .08798 .00862 .09674 .03657 05594 .05514 0960 .05923 .00269	ELEV-L .08275 .08275 .08275 .09548 .09548 27372 .05729 26736 24189 26736 24736 26736	ELEV-R .05572 00619 02476 06810 08048 29096 13620 34049 13000 37763 22906 38382 26001 32192	CAC .01102 .01124 .01156 .01151 .01190 .01197 .01176 .01181 .01184 .01185 .01179 .01205	CAB .02053 .02072 .02126 .02130 .02148 .02163 .02179 .02198 .02266 .02266 .02266
5.000 2.000 2.000	19.967 20.990 23.033	02001 02032 02034	474.54843 474.65578 474.94207	.05736 .06337 .08443	33101 34374 38830	44573 47049 55716	.01259	.02429

DATE	177	NOW	75

LAGSA TABULATED SOURCE DATA

(RJ4004) (28 OCT 75)

PAGE 7

BASELINE (LARC UPWT !118) LA-63A

REFERENCE DATA

SREF = LREF = BREF = SCALE =	2690.0000 474.8000 936.6800 .0150	INCHES YMRP	• .	7000 IN. X0 0000 IN. Y0 0000 IN. Z0)			BETA = SPDBRK = ELEVON =	.000 55.000 10.000	BDFLAP = GRITNO = AILRON =	.000 50.000 .000
		RUN NO.	2/ 0	RN/L =	2.00						
MACH	ALPHA	CN	CA	CLM	CBL	CYN	CY	CL	CD	L/D	ELEVON
1.500	-2.135	07885	. 15245	.02409	00027	00112	.00000	07312	. 15528	47088	9.91509
1.500	086	.02005	.15119	.00528	00001	00144	.00157	.02028	.15116	.13417	9.89944
1.500	1.947		.14868	01226	00018	00157	.00078	.11583	. 15270	.75854	9.89927
1.500	4.023		.14522	03010	00044	00162	.00073	.21263	.16053	1.32457	9.86831
1.500	6.083		.14136	04761	00044	00169	.00137	.31366	.17558	1.78640	9.65257
1.500	7.087		.14005	05519	00038	00178	.00133	.35671	. 18548	1.92317	9.84011
1.500	8.123		.13874	06320	00037	00195	.00227	.40355	. 19775	2.04073	9.81473
1.500	9.143		.13713	07060	00075	00195	.00171	.45071	.21143	2.13171	9.76743
1.500	10.165		.13558	07761	00034	00194	.00106	.49763	.22696	2.19255	9.77893
1.500	11.191	.57883	.13389	08452	00038	00207	.00251	.54184	.24369	2.22349	9.73481
1.500	12.225		.13216	09051	00065	00213	.00333	.58506	.26199	2.23312	9.70634
1.500	13.255		.13020	09655	00089	00227	.00211	.62882	.28189	2.23076	9.66196
1.500	14.266	.72401	.12810	10193	00101	00217	.00375	.67012	.30257	2.21473	9.63675
1.500	16.335	.82739	.12496	11278	00051	00170	.00264	.75885	.35262	2.15202	9.59582
1.500	18.380	.93116	.12246	12465	.00008	00178	.00323	.84504	.40982	2.06201	9.75513
1.500	20.444	1.03002	.11726	13333	00012	00214	.00377	.92418	.46966	1.96779	9.87751
		RUN NO.	35/ 0	RN/L =	2.00						
MACH	ALPHA	CN	CA	CLM	CBL	CYN	CY	CL	CD	L/D	ELEVON
2.000	-1.481	06353	.13598	.00531	00063	.00027	00087	06000	.13758	43611	9.99335
2.000	.539	.01454	.13473	00440	00062	.00046	00135	.01327	.13486	.09841	9.86452
2.000	2.545	.09303	.13324	01465	00060	.00019	00083	.08702	.13724	.63407	9.92782
2.000	4.589	.16990	.13101	02442	00058	.00010	.00061	.15887	.14418	1.10190	9.91845
2.000	6.641	.24864	.12873	03418	00077	.00014	.00091	.23208	.15662	1.48181	9.91235
2.000	7.641	.28550	.12741	03784	00068	.00021	.00048	.26603	.16424	1.61970	9.80501
2.000	8.663	.32302	.12623	04083	00067	.00009	.00062	.30032	.17345	1.73150	9.89970
2.000	9.690	.36378	.12421	04285	00075	.00014	.00109	.33768	.18367	1.83856	9.81094
2.000	10.712	.40222	.12247	04602	00068	.00007	.00124	.37245	.19510	1.90904	9.89670
2.000	11.768	.44460	.12012	04780	00080	.00007	.00116	.41076	.20827	1.97223	9.82994
2.000	12.801	.48398	.11796	05052	00075	.00012	.00100	.44581	.22226	2.00582	9.88087
2.000	13.783	.52426	.11580	05258	00089	.00023	.00087	.48158	.23737	2.02876	9.82057
2.000	14.762	.56488	.11383	05530	00093	.00023	.00106	.51723	.25400	2.03633	9.85257
2.000	16.879	.65395	.11050	06256	00074	.00019	.00138	.59369	.29561	2.00833	9.85868
5.000	18.933	.73981	.10778	06877	00074	.00019	.00230				9.81748
5.000	20.933	.82623	.10533	07471	00051	.00023		.66482	. 34 199	1.94400	
2.000	23.023	.91612	.10274	08121	00059	00011	.00266	.73365 .80297	. 39435	1.86043	9.81146
2.000	23.023	.Sioic	. 102 /4	00121	00059	00013	.00258	.80297	.45286	1.77311	9.76424

(SJ4004) (28 OCT 75)

REFERENCE DATA

2.000

5.000

000.5

14.762

18.933

20.993

23.023

-.01978 475.19256

-.01995 475.04942 -.02060 475.29992 -.02054 475.22835

-.02005 475.51463

PARAMETRIC DATA

SREF BREF SCALE	:	2690.0000 474.8000 936.6800 .0150	INCHES	YMRP	1076.7000 .0000 375.0000	IN.	YO			BETA SPDBRK ELEVON	•	.000 55.000 10.000	BDFLAP = GRITNO = AILRON =	50.000 .000
				RUN NO.	2/ 0 RN	/L :		2.00						

	RUN NO.	5/ 0 F	SN/L = 5.00					
MACH	ALPHA	BETA	Q(PSF)	AILRON	ELEV-L	ELEV-R	CAC	CAB
1.500	-2.135	.00183	476.57189	.04712	9.96221	9.86798	.01650	.03256
1.500	085	.00129	476.40027	.05004	9.94948	9.84940	.01611	.03114
1.500	1 947	.00198	476.52899	.03748	9.93675	9.86179	.01595	.03065
1.500	4.023	.00219	476.44318	. 06844	9.93675	9.79988	.01578	.02983
1.500	6.083	.00197	476.40027	.06508	9.91765	9.78750	.01586	.03002
1.500	7.087	.00217	476.52899	.07118	9.91129	9.76892	.01604	.03006
1.500	8.123	.00180	476.61479	.05200	9.65673	9.76273	.01617	.03022
1.500	9.143	.00212	475.35737	.03564	9.80307	9.73178	.01624	.03033
1.500	10.165	.00250	476.35737	03952	9.73941	9.81845	.01619	.03017
1.500	11.191	.00173	476.40027	05269	9.68212	9.78750	.01619	.03030
1.500	12.225	.00127	476.22866	06878	9.63756	9.77512	.01627	.03047
1.500	13.255	.00226	476.40027	10078	9.56118	9.76273	.01626	.03049
1.500	14.266	.00103	476.57189	10741	9.52935	9.74416	.01634	.03091
1.500	16.335	.00101	476.48608	11739	9.47842	9.71321	.01681	.03181
1.500	18.380	.00079	476.48608	.05430	9.80944	9.70083	.01761	.03378
1.500	20.444	.00107	476.52899	.05287	9.93038	9.82464	.01801	.03525
	RUN NO.	35/ 0 F	N/L = 2.00					
MACH	ALPHA	BETA	Q(PSF)	AILRON	ELEV-L	ELEV-R	CAC	CAB
2.000	-1.481	01862	475.15678	.03252	10.02587	9.96084	.01112	.02331
2.000	.539	01860	475.62199	.02131	9.88582	9.84321	.01155	.02228
2.000	2.545	01855	475.19256	.05985	9.98767	9.86798	.01189	.02246
2.000	4.589	01925	475.22835	.06286	9.98131	9.85559	.01198	.02237
2.000	6.641	01941	475.19256	.07533	9.98767	9.83702	.01201	.02249
2.000	7.541	01921	475.51463	.02989	9.83490	9.77512	.01214	.02256
2.000	8.663	01915	475.19256	.06387	9.96858	9.83083	.01218	.02249
2.000	9.690	01954	475.47884	.00487	9.81580	9.80507	.01198	.02215
2.000	10.712	01957	475.12099	.07825	9.97494	9.81845	.01178	.02189
2.000	11.768	01962	475.5:463	.01769	9.84763	9.81226	.01158	.02165
2.000	12.801	01954	475.12099	.06861	9.94948	9.81226	.01143	.02145
2.000	13.783	01964	475.55041	.02069	9.84126	9.79988	.01137	.02137
2 000	14 763	01070	117E 107EC	00000	0 01000	0 20200	01170	

.06508

.05261

.02379

.04254

.03246

9.91765

9.91129

9.84126

9.85400

9.79670

9.78750

9.80607

9.79369

9.76892

9.73178

.01136

.01154

.01208

.01269

.01317

.02164

.02280

.02391

.02522

.02570

BASELINE (LARC UPHT 1118) LA-63A

(RJ4005) (28 OCT 75)

REFERENCE DATA

PARAMETRIC DATA

MACH ALPHA CN	SREF = LREF = BREF = SCALE =	2690.0000 474.8000 936.6800	INCHES YMRP		7000 IN. XC 0000 IN. YC 0000 IN. ZC				BETA = SPDBRK = ELEVON =	2.000 55.000 -10.000	BDFLAP = GRITNO = AILRON =	.000 50.000 .000
1.500			RUN NO.	4/ 0	RN/L =	2.00					4:11	
1.5000740998					CLM	CBL	CYN	CY	CL	CD	L/D	ELEVON
1.500						00293	.00051	04049	19228	.16001	-1.20166	-9.84778
1.500						- 00315	.00001	03723	09569	. 14987	63849	-9.86644
1.500 6.069 21030 13592 0.0555 -0.0394 -0.0185 -0.3187 19464 15939 1.22887 -9.92868 1.500 7.090 26087 13464 0.0333 -0.00415 -0.0193 -0.03218 2.42857 17467 1.75776 -9.92879 1.500 9.163 36109 12982 0.02618 -0.0378 -0.0293 -0.03218 2.42857 17467 1.75776 -9.92879 1.500 9.163 36109 12982 0.0266 -0.0375 -0.0223 -0.03045 33591 1.8566 1.60971 -9.93816 1.500 10.175 41224 12711 0.1285 -0.0330 -0.0221 -0.0324 38330 1.9793 1.93553 -9.96537 1.500 10.175 41224 12715 0.1285 -0.0330 -0.0221 -0.0324 38330 1.9793 1.93553 -9.96537 1.500 12.222 50761 12183 0.0077 -0.00417 -0.0238 4.6623 2.114 2.01869 -9.95355 1.500 12.222 50761 12183 0.0077 -0.00417 -0.0238 4.0022 -0.03199 5.1408 2.4355 2.11657 -9.96591 1.500 14.288 6.0655 11679 -0.00408 -0.00417 -0.0232 -0.03199 5.1408 2.4355 2.11057 -9.97857 1.500 14.288 6.0655 11679 -0.00419 -0.00428 -0.0277 -0.0505 5.5935 2.6297 2.12707 -9.97857 1.500 18.397 8.0427 1.0792 -0.2517 -0.0333 -0.0020 -0.02907 6.4342 3.03628 2.10072 -1.0.05675 1.500 18.397 8.0427 1.0792 -0.2517 -0.0373 -0.05697 -0.2502 7.2913 3.35614 2.04735 -10.116047 1.500 18.397 8.0427 1.0792 -0.2517 -0.0373 -0.05697 -0.2502 7.2913 3.35614 2.04735 -10.116047 1.500 18.397 8.0427 1.0792 -0.2517 -0.0373 -0.05697 -0.2502 7.2913 3.35614 2.04735 -10.116047 1.500 18.397 8.0427 1.0792 -0.2517 -0.0373 -0.05697 -0.2502 7.2913 3.35614 2.04735 -10.116047 1.500 18.397 8.0427 1.0792 -0.2517 -0.0373 -0.05697 -0.2502 7.2913 3.35614 2.04735 -10.116047 1.500 18.397 -0.05617 1.3376 .04773 -0.0306 .0.0254 -0.03594 -0.03594 -0.03594 -0.0361 1.0047 1					.07217	00342	00064	03540	.00438	. 14725	.02973	-9.88501
1.500					.05529	00366	00115	03425	.09975	.14970	.66632	-9.90067
1.500						00384	00185	03167	. 19464	. 15839	1.22887	-9.92268
1.500 10.175						00415	00193	03218	.24226	. 16581	1.46108	-9.91623
1.500 10.175					.02618	00378	00199	03224	.28957	.17467	1.75776	-9.92879
1.500							00223	03045	. 33581	. 18566	1.80871	-9.93816
1.500 12.282 .50761 12183 .00077004170021403338 .47032 .22653 2.07615 -9.98631 1.500 13.249 .55622 .1192600408004170023203199 .51408 .24356 2.11067 -9.97857 1.500 14.288 .60635 .1167900919004280027703050 .55935 .26297 2.12707 -9.98795 1.500 16.335 .70359 .1129501911003930042002907 .64342 .30628 2.10072 -10.05675 1.500 18.397 .80427 .1078202517 .003730059702602 .72913 .35614 2.04735 -10.11953 1.500 20.457 .90151 .1037802984003610076902332 .80856 .41184 1.96327 -10.16047 **RUN NO.** 377 0 RN/L = 2.00** **MACH ALPHA CN CA CLM CBL CYN CY CL CD L/O ELEVON 2.000 -1.58605617 .13376 .09477300306 .002540359405750 .1331943170 -9.6559 -9.82001 2.000 .56605617 .13376 .09477300306 .002540359405750 .1331943170 -9.65707 2.000 .2.595 .02184 .13044 .0373300291 .0022103423 .01603 .13129 .12207 -9.85305 2.000 4.604 .09917 .12617 .02721 .00294 .0016703210 .08872 .13372 .663349 -9.86553 2.000 6.660 .17911 .12142 .0182300297 .00120 .03131 .16382 .14137 .15878 -9.88573 2.000 7.662 .21746 .11927 .01865 .00291 .0009303807 .19961 .14720 1.75807 -9.91915 .0000 9.718 .29665 .11434 .01033 .00305 .0004703010 .25553 .15421 .52377 -9.9359 2.000 10.713 .33225 .11980 .00899 .00291 .00004 .00091 .32553 .15421 .52377 -9.9359 2.000 11.766 .37232 .10990 .00727 .00308 .00047 .03077 .27309 .16277 .167779 -9.93153 2.000 11.766 .37232 .10990 .00727 .00308 .00047 .03077 .27309 .16277 .167779 -9.93153 2.000 11.766 .37232 .10990 .00727 .00308 .00044 .00014 .3553 .17189 .177807 .9.91597 2.000 11.766 .37232 .10990 .00727 .00308 .00044 .00014 .35503 .17189 .177807 .9.91597 2.000 11.766 .37232 .10990 .00727 .00308 .00044 .00014 .35004 .18671 .18671 .89912 .99912 .00091 .00093 .00094												
1.500												
1.500 14.288 .60695 .11679 .00919 .00428 .00277 .03050 .55935 .26297 2.12707 -9.98795 1.500 16.335 .703595 .11295 .01911 .00393 .00420 .02907 .02602 .72913 .35614 2.04735 -10.11951 .500 18.3397 .804277 .07082 .02517 .00373 .00597 .02602 .72913 .35614 2.04735 -10.11953 .1500 20.457 .90151 .10378 .02984 .00361 .00769 .02332 .80856 .41184 1.96327 .10.16047 .0008 .000												
1.500												
1.500 18.397												
RUN NO. 37/ 0 RN/L = 2.00 MACH ALPHA CN CA CLM CBL CYN CY CL CO L/O ELEVON 2.000 -1.587 -13917 .13637 .0586900301 .003330390813534 .1401796559 -9.82001 2.000 .56605617 .13376 .0477300306 .002540359405750 .1331943170 -9.65707 2.000 2.5945 .02184 .13044 .0373300291 .0022103423 .01603 .13129 .12207 -9.86335 2.000 4.604 .09917 .12617 .02721 .00294 .0016703210 .06872 .13372 .66339 -9.86533 2.000 6.660 .17911 .12142 .0182300297 .0012003113 .16382 .14137 1.15878 -9.87573 2.000 7.662 .21746 .11927 .01486 .00291 .0009303087 .19961 .14720 1.75607 -9.91915 2.000 9.716 .29665 .11434 .0100300305 .0004703310 .23553 .15421 .52737 -9.90359 2.000 9.716 .296655 .11434 .0100300305 .0004703077 .27309 .16277 1.67779 -9.93153 2.000 10.713 .33225 .11208 .00839 .00294 .0002302982 .30563 .17189 1.77807 -9.91597 2.000 11.766 .37232 .10990 .0072700308 .00011 .02961 .34208 .18351 .166413 -9.95002 2.000 11.766 .37232 .10990 .0072700308 .00011 .02961 .34208 .18351 .166413 -9.95002 2.000 12.213 .38886 .10896 .00676 .00315 .0003402994 .35701 .18876 .189132 -9.91279 2.000 12.213 .38886 .10896 .00676 .00315 .0003402994 .35701 .18876 .89132 -9.91279 2.000 14.847 .49229 .10547 .00335 .00306 .00017 .02774 .41180 .20990 1.96188 -9.98716 2.000 14.847 .49229 .10547 .00335 .00386 .00102 .02774 .41180 .20990 1.96188 -9.98716 2.000 15.984 .55617 .57617 .09759 .00012 .00326 .00102 .02774 .41180 .20990 1.96188 -9.98716 2.000 15.984 .55617 .57617 .09759 .00012 .00326 .00102 .02774 .41180 .20990 1.96188 -9.98716 2.000 15.984 .55617 .57617 .09759 .00012 .00326 .00152 .02743 .44960 .22520 .19964 .9.92835 2.000 15.984 .55617 .57877 .09559 .00012 .00326 .00152 .02743 .44960 .22520 .19964 .9.92835 2.000 15.984 .55617 .57877 .09559 .00012 .00326 .00152 .02743 .44960 .22520 .19964 .9.92835 2.000 .15.984 .55617 .57877 .57877 .09559 .00012 .00326 .00152 .02743 .44960 .22520 .19964 .9.92835 2.0000 .15.984 .55617 .57877 .09559 .00012 .00336 .00152 .02743 .44960 .22520 .19964 .9.93454 .00026 .0005												
MACH ALPHA CN CA CLM CBL CYN CY CL CD L/O ELEVON 2.000												
MACH ALPHA CN CA CLM CBL CYN CY CL CO L/O ELEVON 2.000 -1.58713917 .13637 .0586900301 .003330390813534 .1401796559 -9.82001 2.000 .56605617 .13376 .0477300306 .002540359405750 .1331943170 -9.65707 2.000 2.5945 .02184 .13094 .0373300291 .0022103423 .01603 .13129 .12207 -9.86335 2.000 4.6004 .09917 .12617 .02721 .00294 .0016703210 .08872 .13372 .66348 -9.86653 2.000 6.660 .17911 .12142 .0182300297 .0016703210 .08872 .13372 .66348 -9.86553 2.000 7.662 .21746 .11927 .0148600291 .0009303087 .19961 .14720 1.75607 -9.91915 2.000 9.6898 .25614 .11681 .0119100279 .0006403010 .23553 .15421 1.52737 -9.90359 2.000 9.718 .29665 .11434 .0100300305 .0004703077 .27309 .16277 1.67779 -9.93153 2.000 10.713 .33225 .11208 .0083900294 .0002302982 .30563 .17189 1.77807 -9.91597 2.000 11.766 .37232 .10990 .007270030800014 .02961 .34208 .18351 1.86413 -9.95002 2.000 12.213 .38886 .10996 .0067600315 .0003402944 .35701 .18876 1.89132 -9.91279 2.000 12.213 .38886 .10996 .0067600315 .0003402944 .35701 .18876 1.89132 -9.91279 2.000 14.847 .49229 .10247 .00335003360015202774 .41180 .20990 1.96188 -9.98716 2.000 14.847 .49229 .10247 .00335003260015202774 .41180 .20990 1.96188 -9.98716 2.000 18.348 .63240 .0951100313002810026602774 .41180 .20990 1.96188 -9.98716 2.000 18.348 .63240 .0951100313002810026602774 .41180 .20990 1.96188 -9.98716 2.000 18.348 .63240 .0951100313002810026602774 .41180 .20990 1.96188 -9.98716 2.000 18.348 .63240 .0951100313002810026602783 .44960 .22520 1.99646 -9.92835 2.000 20.977 .73797 .0902000681002360026602387 .52291 .26088 2.00443 -9.93454 2.000 20.977 .73797 .0902000681002360056601903 .56577 .38840 1.68559 -10.12963 2.000 20.977 .73797 .0902000681002360056601903 .565577 .38840 1.68559 -10.12963 2.000 20.977 .73797 .0902000681002360056601903 .565577 .38840 1.68559 -10.12963 2.000	1.500	20.457	.90151	.10378	02984	00361	00769	02332	.80856	.41184	1.96327	-10.16047
2.000			RUN NO.	37/ 0	RN/L =	2.00						
2.000	MACH	ALPHA	CN	CA	CLM	CBI	CYN	cv	CI	CD	1.70	EL EVON
2.000	2.000	-1.587										
2.000	2.000	.566		.13376							- 43170	
2 000	2.000	2.545	.02184									
2.000		4.604	.09917									
2.000 7.662 .21746 .11927 .0148600291 .0009303087 .19961 .14720 1.75607 -9.91915 .0000 8.698 .25614 .11681 .0119100279 .0006403010 .23553 .15421 1.52737 -9.90359 2.000 9.718 .29665 .11434 .0100300305 .0004703077 .27309 .16277 1.67779 -9.93153 .2000 10.713 .33225 .11208 .0083900294 .0002302982 .30563 .17189 1.77807 -9.91597 2.000 11.766 .37232 .10990 .00727003080001102961 .34208 .18351 1.86413 -9.95002 .000 12.213 .38886 .10896 .00676003150003402944 .35701 .18876 1.89132 -9.91279 2.000 13.808 .44999 .10555 .00500003260010202774 .41180 .20990 1.96188 -9.98716 2.000 14.847 .49229 .10247 .00335003360015202774 .41180 .20990 1.96188 -9.98716 2.000 14.847 .49229 .10247 .00335003360015202743 .44960 .22520 1.99646 -9.92835 2.000 18.348 .63240 .0951100313002360026602387 .52291 .26088 2.00443 -9.93454 2.000 18.348 .63240 .0951100313002360056601903 .65577 .34840 1.86509 -10.12963		6.660	.17911	.12142								
6.000		7.662	.21746	.11927	.01485							
2.000 9.718 .29665 .11434 .0100300305 .0004703077 .27309 .16277 1.67779 -9.93153 2.000 10.713 .33225 .11208 .0083900294 .0002302982 .30563 .17189 1.77807 -9.91597 2.000 11.766 .37232 .10990 .00727003080001102961 .34208 .18351 1.86413 -9.95002 2.000 12.213 .38886 .10996 .00676003130003402944 .35701 .18876 1.89132 -9.91279 2.000 13.808 .44999 .10555 .00500003260010202774 .41180 .20990 1.96188 -9.98716 2.000 14.847 .49229 .10247 .00335003360015202774 .41180 .20990 1.96188 -9.98716 2.000 15.901 .57617 .0975900012003200026602387 .52291 .26088 2.00443 -9.93454 2.000 18.348 .63240 .0951100313002810037202220 .57030 .28935 1.97099 -9.96231 2.000 20.977 .73797 .0902000681002360056601903 .65577 .34840 1.86509 -10.12963		8.698	.25614	.11681								
2.000			. 29665	.11434	.01003							
2.000 11.766 .37232 .10990 .00727003080001102961 .34208 .18351 1.86413 -9.95002 2.000 12.213 .38886 .10896 .00676003150003402944 .35701 .18876 1.89132 -9.91279 2.000 13.808 .44999 .10555 .00500003260010202774 .41180 .20990 1.96188 -9.98716 2.000 14.847 .49229 .10247 .00335003360015202774 .44180 .20990 1.96188 -9.98716 2.000 15.901 .57617 .0975900012003200026602387 .52291 .26088 2.00443 -9.93454 2.000 18.348 .63240 .0951100313002810037202220 .57030 .28935 1.97099 -9.96231 2.000 20.977 .73797 .0902000681002360056601903 .65577 .34840 1.86509 -10.12963			.33225	.11208	.00839							
2.000 12.213 .38886 .10896 .00676003150003402944 .35701 .18876 1.89132 -9.91279 2.000 13.808 .44999 .10555 .00500003260010202774 .41180 .20990 1.96188 -9.98716 2.000 14.847 .49229 .10247 .003360015202743 .44960 .22520 1.99646 -9.92835 2.000 16.901 .57617 .0975900012003200026602387 .52291 .26088 2.00443 -9.93454 2.000 18.348 .63240 .0951100313002610037202220 .57030 .28935 1.97099 -9.96231 2.000 20.977 .73797 .0902000681002360056601903 .65577 .34840 1.86509 -10.12963			.37232	.10990	.00727							
2.000 13.808 .44999 .10555 .00500003260010202774 .41180 .20990 1.96188 -9.98716 2.000 14.847 .49229 .10247 .00335003360015202743 .44960 .22520 1.99646 -9.92835 2.000 15.901 .57617 .0975900012003200026602387 .52291 .26088 2.00443 -9.93454 2.000 18.348 .63240 .0951100313002610037202220 .57030 .28935 1.97099 -9.96231 2.000 20.977 .73797 .0902000681002360056601903 .65577 .34840 1.86509 -10.12963				.10996	.00676	00313	00034					
2.000 14.847 .49229 .10247 .00335003360015202743 .44960 .22520 1.99646 -9.92835 2.000 16.901 .57617 .0975900012003200026602387 .52291 .26088 2.00443 -9.93454 2.000 18.348 .63240 .0951100313002810037202220 .57030 .28935 1.97099 -9.96231 2.000 20.977 .73797 .0902000681002360056601903 .65577 .34840 1.88509 -10.12963				.10555	.00500	00326	00102					
2.000 16.901 .57617 .0975900012003200026602387 .52291 .26088 2.00443 -9.93454 2.000 18.348 .63240 .0951100313002810037202220 .57030 .28935 1.97099 -9.96231 2.000 20.977 .73797 .0902000681002360056601903 .65577 .34840 1.88509 -10.12963					.00335							
2.000 18.348 .63240 .0951100313002810037202220 .57030 .28935 1.97099 -9.96231 2.000 20.977 .73797 .0902000681002360056601903 .65577 .34840 1.88509 -10.12963				.09759	00012	00320	00266					
2.000 20.977 .73797 .0902000681002360056601903 .65577 .34840 1.86509 -10.12963				.09511								
						00236	00566					
	5.000	23.038	.85565	.08592	00946	00208		01680				

ORIGINAL PAGE IS

(SJ4005) (28 OCT 75)

REFERENCE DATA

PARAMETRIC DATA

SREF LREF BREF SCALE	:	2690.0000 474.8000 936.6800 .0150	INCHES	YMRP	1076.7000 .0000 375.0000	IN.	YO			BETA SPOBRK ELEVON	•	2.000 55.000 -10.000	BDFLAP = GRITNO = AILRON =	.000 50.000 .000
				RUN NO.	4/ Ú RN	//L •	2.0	00						

			E.00					
MACH	ALPHA	BETA	Q(PSF)	AILRON	ELEV-L	ELEV-R	CAC	CAB
1.500	-2.134	2.01214	476.87221	17172	-10.01950	-9.67506	.01588	.03556
1.500	074	2.01079	476.87221	15942	-10.02587	-9.70702	.01574	.03543
1.500	1.968	2.01059	477.00092	14085	-10.02587	-9.74416	.01568	.03269
1.500	4.023	2.01972	476.95802	13793	-10.03850	-9.76273	.01543	.03156
1.500	6.069	0.01020	476.78641	14138	-10.06406	-9.78131	.01543	.03086
1.500	7.090	2.01070	476.87221	12873	-10.04496	-9.78750	.01557	.03049
1.500	8.121	2.01078	476.78641	12891	-10.05770	-9.79988	.01569	.03045
1.500	9.163	2.00997	476.87221	12590	-10.06406	-9.81226	.01585	.03021
1.500	10.175	8.01106	478.82931	12316	-10.08952	-9.84321	.01598	.03039
1.500	11.197	2.01142	476.74350	10415	-10.05770	-9.84940	.0:609	.03064
1.500	15.555	2.01165	476.78641	09495	-10.06406	-9.87417	.01631	.03098
1.500	13.249	5.01100	476.91512	09922	-10.07679	-9.88036	.01672	.03152
1.500	14.288	2.01070	476.74350	09521	-10.08316	-9.89274	.01701	.03217
1.500	16.335	2.01194	476.74350	07734	-10.13408	-9.97941	.01777	.03370
1.500	18.397	2.01255	476.70069	07921	-10.19774	-10.04132	.01889	.03692
1.500	20.457	2.01366	476.82931	08820	-10.24866	-10.07227	.01990	.03853
	RUN NO.	37/ 0 F	N/L = 2.00					
MACH	ALPHA	BETA	Q(PSF)	AILRON	ELEV-L	ELEV-R	CAC	CAB
2.000	-1.587	2.00587	475.08521	20586	-10.02587	-9.61416	.01061	.02308
2.000	.568	2.00604	475.12099	- 16243	-10.01950	-9.69464	.01080	.02211
2.000	2.545	2.00544	475.26413	16252	-10.02587	-9.70083	.01121	.02168
2.000	4.604	2.00497	475.19256	16570	-10.03223	-9.70083	.01136	.02158
2.000	6.660	2.00515	475.26413	15014	-10.02587	-9.72559	.01137	.02168
2.000	7.662	2.00543	475.37149	11308	-10.03223	-9.80607	.01128	.02133
2.000	8.698	2.00535	475.15678	12228	-10.02587	-9.78131	.01114	.02098
2.000	9.718	2.00601	475.29992	10070	-10.03223	-9.83083	.01109	.02089
2.000	10.713	2.00573	475.26413	10990	-10.02587	-9.80607	.01112	.02099
2.000	11.766	2.00609	475.29992	07585	-10.02587	-9.87417	.01130	.02117
2.000	12.213	2.00631	475.29992	10672	-10.01950	-9.80607	.01138	.02136
2.000	13.808	2.00623	475.26413	03871	-10.02587	-9.94845	.01158	.02193
2.000	14.847	2.00678	475.37149	.09752	-10.02587	-9.83083	.01185	.02309
2.000	16.901	2.00619	475.29992	09133	-10.02587	-9.84321	.01220	.02425
2.000	18.348	2.00674	475.22835	05719	-10.01950	-9.90512	.01255	.02434
2.000	20.977	2.00774	475.19256	.09740	-10.03223	-10.22704	.01313	.02488
2.000	23.038	2.00873	475.15678	.00466	-10.24866	-10.25799	.01332	.02447

LAGSA TABULATED SOURCE DATA

BASELINE (LARC UPHT 1118) LA-63A (RJ4006) (28 OCT 75)

PAGE 11

	REFER	RENCE DATA							PARAMETRIC	DATA	
SREF = LREF = BREF = SCALE =	2690.0000 474.8000 936.6800 .0150	INCHES YMRP	0	0000 IN. XO				BETA = SPDBRK = ELEVON =	2.000 55.000 .000	BDFLAP = GRITNO = AILRON =	.000 50.000 .000
		RUN NO.	5/ 0	RN/L =	2.00						
MACH 1.500 1.500 1.500 1.500 1.500	4.014 6.065 7.108	03404 .06751 .16350 .26667 .31753	CA .14708 .14438 .14047 .13604 .13183 .12993	CLM .06832 .04644 .03015 .01455 00025 00693	CBL 00286 00289 00348 00400 00410 00411	CYN 00009 00030 00100 00164 00243 00253	CY 03855 03652 03504 0310 03160 03155	CL 13188 03389 .06265 .15358 .25125 .29901	CD .15213 .14441 .14270 .14715 .15926 .16823	L/D 86690 23470 .43904 1.04367 1.57756 1.77743	ELEVON .13228 .05669 .01343 .01095 00409 01974
1.500 1.500 1.500 1.500 1.500 1.500 1.500	8.122 9.151 10.170 11.204 12.227 13.258 14.288 16.373 18.389	.41269 .46469 .51328 .56196 .61191 .66014 .76152 .85853	.12821 .12642 .12498 .12340 .12134 .11929 .11742 .11289 .110891	01310 01970 02622 03241 03786 04352 04869 05973 06785	00339 00297 00274 00278 00315 00327 00365 00335	00254 00255 00263 00270 00282 00309 00334 00469 00582	03022 03013 03248 03107 03083 03055 03212 02901 02817	.34430 .38732 .43532 .47952 .52351 .56824 .61074 .69882 .78034	.17864 .190'14 .20507 .2078 .23759 .25644 .27672 .32296 .37418 .43327	1.92735 2.03384 2.12283 2.17191 2.20339 2.21586 2.20709 2.16382 2.08544 1.98995	0223 02789 .02852 .05778 06051 06596 08863 14204 15760
		RUN NO.	38/ 0	RN/L =	2.00	00760	02447	.80220	.43367	1.30333	16333
MACH 2.000 2.000 2.000 2.000 2.000 2.000 2.000	ALPHA -1.607 .526 2.586 4.485 5.634 7.654 8.667 9.691	02298 .05665 .13010 .20997 .24741 .28610	CA .13317 .13035 .12718 .12405 .12085 .11962 .11750 .11534 .11537	CLM .03362 .02276 .01229 .00362 00510 00859 01077 01320 01484	CBL 00325 00336 00309 00316 00317 00309 00318 00344	CYN .00337 .00275 .00242 .00188 .00118 .00108 .00085 .00085	CY 03807 03614 03182 03081 03059 03073 03083	CL 10257 02417 .05086 .12000 .19460 .22927 .26513 .30166	CD .13610 .13014 .12961 .13385 .14430 .15151 .15927 .16852	L/D 75365 18574 .39240 .89653 1.34858 1.51324 1.66464 1.79003	ELEVON 05323 13990 14609 20172 26071 21197 37541 23054
2.000 2.000 2.000 2.000 2.000 2.000	11.755 12.208 13.812 14.837 16.912 18.942 20.972	.40308 .42154 .48456 .52481 .61023 .69273	.11297 .11072 .10894 .10640 .10278 .09831 .09523 .09228	01484 01704 01745 02040 02183 02564 03073 03470 03873	00354 00358 00358 00371 00354 00320 00269	.00015 00008 00086 00132 00255 00390 00555	03037 02954 02935 02841 02702 02486 02061 01924 01695	. 33543 . 37207 . 38897 . 44515 . 48099 . 55524 . 62431 . 69146 . 75850	.17838 .19051 .19562 .21901 .23374 .27158 .31494 .36388 .41749	1.88041 1.95300 1.98842 2.03257 2.05776 2.04449 1.98231 1.98026	42908 23373 48240 27785 54819 57614 64537 66438 74273

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BASELINE (LARC UPWT 1118) LA-63A

(SJ4006) (28 OCT 75)

REFERENCE DATA

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20.972

23.018

PARAMETRIC DATA

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		RUN NO.	5/ 0 Rt	N/L = 2.00						
	MACH 1.500 1.500 1.500	ALPHA -2.145 059 1.966 4.014	BETA 2.01180 2.01080 2.01091 2.01071	Q(PSF) 476.74350 476.74350 476.87221 476.91512	AILRON .03323 .01334 .06296 .11000	ELEV-L .16551 .07002 .07639 .12095	ELEV-R .09905 .04333 04953 09905	CAC .01546 .01560 .01539 .01520	CAB .02826 .02879 .02864 .02818	
	1.500 1.500 1.500	6.065 7.108 8.122 9.151	2.01105 2.01119 2.01033 2.01025	476.91512 476.95802 476.91512 476.78641	.15687 .15979 .20683 .25069	.15278 .14004 .18460	16096 17953 22906 27858	.01533 .01562 .01580 .01598	.02799 .02849 .02893 .02957	
	1.500 1.500 1.500 1.500	10.170 11.204 12.227 13.258	2.01187	476.91512 476.87221 476.87221 476.91512	.24520 .31779 .16236 .14971	.27372 .37557 .10185 .08275	21667 26001 22287 21667	.01613 .01623 .01633 .01667	.03012 .03036 .03071 .03146	
	1.500 1.500 1.500 1.500	14.288 16.372 18.389 20.444	2.01263 2.01263 2.01387 2.01426	476.87221 476.65770 476.87221 476.82931	.17138 .16750 .17670 .19828	.08275 .02546 .01910 .01273	26001 30953 33430 38382	.01691 .01761 .01839 .01915	.03183 .03407 .03518 .03646	
		RUN NO.	38/ 0 Rt	N/L = 2.00						
	MACH 2.000 2.000 2.000 2.000 2.000	ALPHA -1.607 .522 2.586 4.485 6.634 7.654	BETA 2.00619 2.00587 2.00506 2.00448 2.00498 2.00503	Q(PSF) 475.51463 475.55041 475.47884 475.40727 475.40727 475.51463	AILRON .00867 .09534 .10153 .16353 .20978 .10375	ELEV-L 04456 04456 03819 05093 10822	ELEV-R 06191 23525 24763 36525 47049 31573	CAC .01097 .01134 .01158 .01170 .01186 .01196	CAB .02077 .02112 .02149 .02171 .02171	
	000.5 000.5 000.5 000.5	8.667 9.691 10.704 11.755 12.208	2.00544 2.00549 2.00594 2.00567	475.44306 475.58620 475.47884 475.65777 475.44306	.31176 .12233 .28904 .11914 .29143	06366 10822 14004 11458 19097	68717 35287 71812 35287 77384	.01189 .01179 .01175 .01197	.02187 .02178 .02206 .02282 .02344	
	2.000 2.000 2.000 2.000	13.812 14.837 16.912 18.942	2.00644 2.00621 2.00666 2.00603	475.69356 475.55041 475.51463 475.51463	.10598 .29993 .32151 .30799	17187 24826 25463 33738	38382 84813 89765 95337	.01212 .01203 .01209 .01247	.02250 .02382 .02448 .02444	

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LAGSA TABULATED SOURCE DATA

PAGE 13

BASELINE (LARC UPWT 1118) LA-63A

(RJ4007) (28 OCT 75)

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PARAMETRIC DATA

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		RUN NO.	6/ 0	RN/L =	2.00						
MACH 1.500 1.500 1.500 1.500 1.500 1.500 1.500 1.500	ALPHA -2.131 097 4.033 6.079 7.087 8.121 9.150 10.151 11.202 12.237	.22795 .32877 .37571 .43076 .47932 .52758 .57555 .62845	CA .15215 .15126 .14501 .14130 .13982 .13832 .13561 .13407 .13259	CLM .02408 .00580 02998 04662 05360 06164 06888 07582 08199 08846	CBL 00347 00348 004!4 00396 00410 00371 00378 00359 00357	CYN .00006 00079 00196 00253 00268 00290 00317 00302 00306	CY0406803572032370312503066030660315103164	CL 07302 .02057 .21719 .31196 .35559 .40690 .45148 .49542 .53854 .58607	CD .15497 .15122 .16068 .17532 .18511 .19779 .21120 .22648 .24333 .26278	L/D 47119 .13601 1.35165 1.77938 1.92098 2.05727 2.13773 2.18749 2.21322 2.23028	ELEVON 10.00839 9.98310 9.91361 9.89141 9.87877 9.85383 9.83199 9.80069 9.76947 9.73189
1.500 1.500 1.500 1.500	13.250 16.331 18.393 20.446	.82702	.13124 .12599 .12260 .11481	09459 11152 12195 12609	00397 00381 00373 00499	00338 00437 00575 00838	03168 02961 02645 02061	.62701 .75823 .84292 .91777	.28247 .35345 .40949 .46469	2.21969 2.14525 2.05846 1.97501	9.67220 9.61587 9.62639 9.45857
MACH 2.000 2.000 2.000 2.000 2.000 2.000 2.000 2.000 2.000 2.000 2.000 2.000 2.000	ALPHA -1.495 .511 2.569 4.596 6.644 7.687 8.724 9.708 10.583 11.753 12.761 13.803 14.866 16.864 18.906 21.000 23.045	.01486 .09337 .7000 .24856 .28625 .32831 .36587 .40362 .44489 .48468 .52636 .57331 .65244 .74057	CA .13675 .13596 .13339 .13126 .12954 .12722 .12594 .12394 .12260 .12015 .11654 .11620 .11430 .10998 .10732 .10441 .10067	CLM .00322 00632 01601 02609 03450 04170 04388 04711 04878 05149 05332 05707 06305 06911 07412 08089	CBL003190031400314002950031700317003580036600370003760037600376003760037600317	CYN .00359 .00314 .00246 .00193 .00140 .00129 .00107 .00089 .00061 .00042 00008 00047 00098 00228 00228 00373 00533	CY03935637330343703256031020305003064030640296102937029090275202478021180187701597	CL 05957 .01365 .08730 .15894 .23202 .26666 .30542 .33973 .37390 .41109 .44653 .48344 .52189 59248 .66584 .73521	CD .13835 .13608 .13744 .14446 .15644 .16436 .17428 .18386 .19530 .20825 .22267 .23843 .25679 .29452 .34149 .39406 .45120	L/D43061 .10032 .63515 1.10023 1.48318 1.62240 1.75247 1.84774 1.91450 1.97399 2.00533 2.02761 2.03237 2.01168 1.94982 1.86571 1.78076	ELEVON 9.97133 9.93428 9.89024 9.84957 9.84930 9.78191 9.79555 9.74467 9.77026 9.73848 9.87839 9.71054 9.8348 9.87839 9.71054 9.8348 9.87839 9.71054 9.8348 9.87839 9.71054 9.8348 9.83

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(SJ4007) (28 OCT 75)

PARAMETRIC DATA

REFERENCE DATA

2.000

2.000

21.000

23.045

2.00708 475.37149

2.00796 475.37149

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RUN NO. 6/ 0 RN/L = 2.00MACH ALPHA BETA Q(PSF) AILRON ELEV-L ELEV-R CAC CAB 1.500 -2.131 2.01297 477.12963 -.01435 9.99404 10.02274 .01619 .03248 .03188 1.500 -.02726 9.95585 10.01036 .01619 -.097 2.01105 477.12963 .03066 4.033 9.85400 9.97322 .01582 1.500 2.01074 477.04383 -.05961 .01579 .03008 1.500 6.079 2.01097 476.87221 -.07561 9.81580 9.96703 .02993 1.500 7.087 2.01086 477.00092 -.08207 9.79670 9.96084 .01589 1.500 8.121 2.01127 477.08673 -.06986 9.78397 9.92369 .01596 .02997 1.500 2.01047 477.00092 -.06075 9.77124 9.89274 .01594 .03022 9.150 .03053 9.85559 1.500 10.151 2.01207 477.04383 -.05491 9.74578 .01608 .03091 9.72658 .01626 1.500 11.202 2.01094 477.08673 -.04279 9.81226 1.500 12.237 -.03704 9.69485 9.76892 .01637 .03124 2.01192 476.91512 1.500 13.250 2.01243 476.95802 -.04101 9.63120 9.71321 .01644 .03118 .01705 .03218 1.500 16.331 2.01256 476.95802 -.02924 9.58664 9.64511 1.500 9.67576 9.57701 .01760 .03380 18.393 2.01266 476.82931 .04937 1.500 20.446 2.01297 477.00092 -.05654 9.40204 9.51511 .01717 .03381 RUN NO. 39/ 0 RN/L = 2.00ELEV-R CAB MACH ALPHA BETA Q(PSF) A!LRON ELEV-L CAC .02278 0.000 -1.495 2.00667 475.62109 .02907 10.00040 9.94226 .01116 .01146 2.000 .511 2.00604 475.62199 .07249 10.00677 9.86179 .02213 . 02238 2.000 2.569 2.00516 475.56620 .06560 9.95585 9.82464 .01179 .02253 2.000 4.596 9.92402 9.77512 2.00489 475.58620 .07445 .01209 6.644 9.90492 .02257 2.000 2.00481 475.65777 .05562 9.79369 .01212 2.000 7.687 2.00466 475.58620 .17394 9.95585 9.60797 .01209 .02244 2.000 8.724 2.00497 475.65777 9.82217 9.76892 .02238 .02662 .01209 2.000 9.708 2.00530 475.51463 .20481 9.94948 9.53987 .01203 .02225 .02219 2.000 9.75654 10.683 2.00577 475.55041 .01372 9.78397 .01200 11.753 9.94948 9.52749 .02228 2.000 2.00530 475.69356 .01188 .21100 .01184 12.761 9.99404 9.76273 .02234 2.000 2.00588 475.37149 .11565 2.000 13.803 2.00628 475.58620 .23258 9.94311 9.47796 .01186 .02250 2.000 14.865 10300.5 475.29992 9.98131 9.68845 .02284 . 14643 .01184 2.000 16.864 9.57701 .02350 2.00618 475.22835 .22761 10.03223 .01177 2.000 18.906 9.97494 .02378 2.00612 475.29992 .24230 9.49034 .01182

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9.86035

9.46558

9.45939

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.02460

LAGSA TABULATED SOURCE DATA

PAGE 15

BASELINE (LARC UPHT 1118) LA-63A

(RJ4008) (28 OCT 75)

REFERENCE DATA

	-								I AMARIE INTO	DAIA	
SREF = LREF = BREF = SCALE =	2690.0000 474.8000 936.6800 .0150	INCHES YMRP		7000 IN. X0 0000 IN. Y0 0000 IN. Z0				BETA = SPDBRK = ELEVON =	-2.000 55.000 -10.000	BDFLAP = GRITNO = AILRON =	.000 50.000 .000
		RUN NO.	9/ 0	RN/L =	2.00						
MACH 1.500 1.500 1.500 1.500 1.500 1.500 1.500 1.500 1.500 1.500 1.500 1.500	080 1.966 4.010 6.070 7.102 8.118 9.154 10.170 11.203 13.246 14.282 16.341 18.393	09125 .00964 .11099 .20974 .26316 .31272 .36285 .41489 .46024 .51012 .55673 .60747 .70764	CA .15354 .15059 .14653 .14151 .13667 .13396 .13179 .13010 .12794 .12542 .12265 .12018 .11751 .11360 .10694 .10090	CLM .11173 .09112 .07252 .05564 .04106 .03345 .02640 .01951 .01266 .00681 .00092 00438 00953 01801 02299 02883	CBL .00249 .00238 .00286 .00337 .00324 .00304 .00268 .00268 .00263 .00255 .00309 .00379	CYN0070800705006390057100531005430056000589005890059900538004930028600122	CY .03980 .03979 .03881 .03641 .03545 .03676 .03766 .03765 .03950 .03986 .03870 .03886 .03701	CL 19087 09103 .00461 .10083 .19411 .24458 .29097 .33753 .38578 .42710 .47253 .51439 .51439 .55970 .64709 .72974	CD .15076 .15072 .14677 .14892 .15809 .16546 .17463 .18617 .19919 .21246 .22800 .24455 .26373 .30810	L/D -1.18731 60400 .03143 .67704 1.22786 1.47812 1.66627 1.81302 1.93676 2.01027 2.07249 2.10342 2.12223 2.10025 2.05361	ELEVON -9.85424 -9.88528 -9.89766 -9.91340 -9.92587 -9.92578 -9.93533 -9.95708 -9.99192 -10.01747 -10.03648 -10.08648 -10.09882 -10.05919 -10.08069
	23.100	RUN NO.	42/ 0	RN/L =		.00092	.03391	.81129	.41051	1.97632	-10.15798
MACH 2.000 2.000 2.000 2.000 2.000 2.000 2.000 2.000 2.000 2.000 2.000 2.000 2.000 2.000	.522 2.572 4.595 6.646 7.688 9.681 9.706 10.746 11.957 12.807 13.810 14.840 16.930 20.981	.02467 .10107 .18063 .22088 .25695 .29602 .33424 .38128 .41198 .45231 .49338 .57638 .65850	CA .13808 .13422 .12996 .12564 .12140 .11915 .11700 .11451 .11227 .10992 .10760 .10516 .10242 .09788 .09441 .C8922 .08350	CLM .05834 .04713 .03678 .02680 .01785 .01412 .01191 .01031 .00882 .00735 .00640 .00539 .00327 .00004 00421 00860	CBL .00238 .00231 .00210 .00214 .00213 .00209 .00217 .00232 .00248 .00257 .00268 .00278 .00283 .00267 .00267	CYN003300027000216001500009000077000560003500014 .00029 .00062 .00113 .00181 .00345 .00509 .00631	CY .04225 .03981 .03754 .03644 .03660 .03597 .03603 .03666 .03600 .03611 .03496 .0399 .02930 .02957	CL 13657 05694 .01881 .09068 .16536 .20295 .23635 .27248 .30745 .35023 .37788 .41413 .45069 .52294 .59226 .65971	CD .14190 .13370 .13093 .13333 .14149 .14763 .15444 .16278 .17262 .18653 .19625 .21009 .22537 .26138 .30292 .34854 .40030	L/D9624442586 .14368 .68007 1.16873 1.37474 1.53036 1.67385 1.78110 1.87763 1.92552 1.97121 1.99978 2.00066 1.95516 1.89276	ELEVON -9.84238 -9.87979 -9.89217 -9.94780 -9.96027 -9.98193 -9.99122 -10.00042 -10.00360 -10.00361 -10.01271 -10.01589 -10.04364 -10.07824

(SJ4008) (28 OCT 75)

PARAMETRIC DATA

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.01327

REFERENCE DATA

2.000

23.040 -2.03062 475.19256

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RUN NO. 9/ 0 RN/L = 2.00MACH ALPHA BETA Q(PSF) AILRON ELEV-I. ELEV-R CAC CAB 1.500 -2.136 -1.99976 477.12963 -.18436 -10.03860 -9.66987 .01563 .03398 1.500 -.080 -1.99981 477.00092 -.15969 -10.04496 -9.72559 .03438 .01573 1.500 1.966 -2.00019 477.25834 -.14731 -10.04496 -9.75035 .01543 .03411 1.500 4.010 -1.99959 477.25834 -.15066 -10.06406 -9.76273 .01527 .03264 1.500 6.070 -1.99965 477.38706 -.14456 -10.07043 -9.78131 .01526 .03149 1.500 7.102 -2.00031 477.42996 -.13828 -10.06406 -9.78750 .01537 .03159 1.500 -2.00072 477.21544 8.118 -.14783 -10.08316 -9.78750 .01558 .03145 1.500 9.154 -2.00050 477.34415 -.13244 -10.08952 -9.82464 .01576 .03096 1.500 10.170 -2.00127 477.34415 -.15490 -10.14681 -9.83702 .01604 .03055 1.500 -2.00117 477.30125 -.18564 -10.20410 -.19946 -10.23593 11.205 -9.83083 .01621 .03046 -2.00147 477.34415 1.500 . 12.239 -9.83702 .01634 .03065 1.500 13.246 -2.00160 477.25834 -.18132 -10.26776 -9.90512 .01654 .03095 1.500 14.282 -2.00239 477.08673 -.16894 -10.26776 -9.92988 .01683 .03157 1.500 16.341 -2.00439 477.17254 -.25313 -10.31232 -9.80607 .01786 .03382 1.500 18.393 -2.00547 477.12963 -.21890 -10.29959 -9.86179 .01899 .03832 1.500 20.468 -2.00803 477.17254 -.13524 -10.29322 -10.02274 .01988 .04058 RUN NO. 42/ 0 RN/L = 2.00 MACH ALPHA BETA Q(PSF) AILRON ELEV-L ELEV-R CAB 2.000 -1.581 -2.02599 475.01364 -.23441 .01070 -10.07679 -9.60797 .02135 2.000 .522 -2.02534 475.08521 -.21610 -10.09589 -9.66368 .01089 .02167 2.000 2.572 -2.02472 475.19256 -.20372 -10.09589 -9.68845 .01115 .02180 -2.02493 475.29992 -2.02547 475.29992 -2.02540 475.22835 -2.02595 475.19256 2.000 4.595 -.17277 -10.09589 -9.75035 .01128 .02193 2.000 6.646 .01138 -.14173 -10.08952 -9.80607 .02193 2.000 7.688 -.13562 -10.09589 .01129 -9.82464 .02174 2.000 .01119 8.681 -.11396 -10.09599 -9.86798 .02133 9.706 2.000 -2.02634 475.22835 -.10467 -10.09589 -9.88655 .01105 .02083 2.000 -2.02709 475.22835 -2.02735 475.15678 -.08911 -10.08952 -9.91131 .01112 .02095 11.957 2.000 -.08919 -10.09589 -.09229 -10.09589 -9.91750 .01145 .02126 2.000 12.807 -2.02795 475.26413 .01163 -9.91131 15550. 2.000 13.810 -2.02799 475.12099 -.06292 -10.08952 .01194 -9.92369 .02327 2.000 14.840 -2.02830 475.12099 -.07045 -10.08316 -9.94226 .01222 .02400 2.000 475.29992 16.920 -2.02896 -.07363 -10.08952 -9.94226 .01238 .02406 2.000 18.930 -2.03038 475.33570 -.03949 -i0.08316 -10.00417 .01297 .02472 .01320 2.000 20.981 -2.03042 475.33570 -.04311 -10.12135 -10.03512 .02523

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LAGSA TABULATED SOURCE DATA

PAGE 17

BASELINE (LARC UPWT 1118) LA-63A

(RJ4009) (28 OCT 75)

PARAMETRIC DATA

REFERENCE DATA

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.0000 IN. YO	SPDBRK	55.000	GRITNO .	50.000
375.0000 IN. ZO	FLEVON	.000	AILRON =	.000

REF =	936.6800 IN .0150	ICHES ZMRP	= 375.0	000 IN. ZO)			ELEVON =	.000	AILRON =	.000
		RUN NO.	8/ 0	RN/L =	2.00						
MACH 1.500 1.500 1.500 1.500 1.500 1.500 1.500 1.500 1.500 1.500 1.500 1.500 1.500	ALPHA -2.153087 1.966 4.031 6.065 7.089 8.119 9.160 10.158 11.194 12.240 13.251 14.256 16.334 18.399 20.449	CN1385103621 .06722 .16714 .26656 .31603 .36507 .41639 .46349 .51182 .56321 .61171 .66306 .75725 .85792	CA .14398 .14365 .14103 .13580 .13062 .12858 .12676 .12541 .12408 .12276 .12095 .11935 .11710 .11257 .10922 .10500	CLM .06978 .05021 .03180 .01559 .00119 01201 01844 02545 03129 03711 04275 04774 05629 06468 07211	CBL .00181 .00180 .00233 .00303 .00305 .00253 .00231 .00231 .00267 .00288 .00310 .00310 .00310	CYN006440060000566005560045800455004560046100462004590045900408002390023900084	CY .04001 .03772 .03747 .03445 .03555 .03405 .03437 .03437 .03428 .03503 .03764 .03680 .03700 .03577	CL 13301 03599 .06234 .15718 .25127 .29775 .34350 .39111 .43431 .47825 .52476 .56807 .61419 .69500 .77959	CD .14908 .14370 .14325 .14721 .15805 .16659 .17705 .19010 .20395 .21978 .23761 .25638 .27735 .32109 .37443 .43302	L/D8921625047 .43517 1.05777 1.58977 1.78727 1.94016 2.05738 2.12944 2.17603 2.20854 2.21571 2.21449 2.16453 2.08206 1.98788	ELEVON .02184 .00929 04961 08392 18324 20809 22692 29201 36037 39150 46074 51397 54819 61804 33397 35642
		RUN NO.	41/ 0	RN/L =	2.00						
MACH 2.000 2.000 2.000 2.000 2.000 2.000 2.000 2.000 2.000 2.000 2.000 2.000 2.000 2.000	ALPHA -1.565 .499 2.550 4.558 6.651 7.619 8.674 9.716 10.701 11.748 12.708 13.782 14.830 16.890 18.928 20.981 23.050	CN1039002229 .05767 .13197 .21471 .25008 .28869 .32714 .36301 .40477 .44289 .48347 .52633 .61026 .69313 .77761	CA .13259 .13033 .12679 .12392 .12123 .12029 .11870 .11581 .1159 .11113 .10897 .10550 .10550 .09898 .09566 .09155 .08647	CLM .03180 .02134 .01120 .00216 00638 00925 01207 01412 01499 01661 021785 02164 03139 03571 04034	CBL .00225 .00226 .00211 .00208 .00196 .00237 .00237 .00233 .00240 .00253 .00261 .00261 .00241 .00225 .00214	CYN0030800255001900011800053000460003600015 .00012 .00044 .00095 .00156 .00213 .00366 .00531 .00653 .00796	CY .04183 .04019 .03820 .03672 .03647 .03629 .03633 .03643 .03551 .03496 .03418 .03165 .02919 .02626	CL 10024 02342 .05197 .12175 .19922 .23192 .26749 .30290 .33561 .37366 .40807 .44418 .48218 .48218 .55517 .62462 .69328	CD .13538 .13013 .12923 .13397 .14528 .15238 .16087 .16936 .17902 .19122 .20373 .21861 .23522 .27202 .31533 .36390 .41829	L/D 74047 17999 .40214 .90880 1.37134 1.52200 1.66272 1.78847 1.874772 1.95413 2.00302 2.03183 2.04995 1.98087 1.90511	ELEVON .04094 .02237 .01308 .00070 -04573 -06138 07995 -13275 -28173 -33196 -36635 -43807 -49096 -55374 -57876 -59751

ORIGINAL PAGE IS OF POOR QUALITY

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BASELINE (LARC UPHT 1118) LA-63A

(SJ4009) (28 OCT 75)

.000 AILRON =

REFERENCE DATA

PARAMETRIC DATA SREF = 2690.0000 SQ.FT. XMRP = 1076.7000 IN. XO LREF = 474.8000 INCHES YMRP = .0000 IN. YO BREF = 936.6800 INCHES ZMRP = 375.0000 IN. ZO BOFLAP = .000 -2.000 BETA = 55.000 GRITNO -50.000 SPDBRK =

ELEVON =

SCALE -.0150

	RUN NO.	8/ 0 F	N/L = 2.00					
MACH	ALPHA	BETA	Q(PSF)	AILRON	ELEV-L	ELEV-R	CAC	CAB
1.500	-2.153	-2.00086	477.42996	00911	.01273	.03095	.01510	.03075
1.500	087	-2.00007	477.34415	00929	.00000	.01857	.01524	. 02846
1.500	1.966	-2.00048	477.25834	.04325	00637	09286	.01527	. 02776
1.500	4.031	-1.99931	477.12963	.05846	02546	14239	.01507	. 02813
1.500	6.065	-2.00067	477.30125	.13868	04456	32192	.01505	.02861
1.500	7.089	-2.00012	477.00092	.15716	05093	36525	.01512	. 02893
1.500	8.119	-1.99937	477.17254	.15690	07002	38382	.01534	.02942
1.500	9.160	-1.99996	477.08673	.21562	07639	50764	.01559	.02972
1.500	10.168	-1.99984	477.08673	.26489	09548	62526	.01577	.03016
1.500	11.194	-2.00034	477.04383	.28329	10822	67479	.01599	. 03059
1.500	12.240	-2.00209	477.08673	.26977	19097	73050	.01620	.03097
1.500	13.251	-2.00236	477.12963	.27844	23553	79241	.01645	.03119
1.500	14.296	-2.00309	477.04383	.29993	24826	84813	.01672	.03206
1.500	16.334	-2.00430	477.00092	.24247	37557	86051	.01745	.03394
1.500	18.399	-2.00602	476.95802	09253	42650	24144	.01832	.03491
1.500	20.449	-2.00761	477.12963	12737	48379	22906	.01922	.03632

RUN NO. 41/ 0 RN/L = 2.00

MACH	ALPHA	BETA	Q(PSF)	AILRON	ELEV-L	ELEV-R	CAC	CAB
2.000	-1.565	-2.02605	475.01364	.00999	. 05093	.03095	.0'084	05085
2.000	.499	-2.02582	475.04942	.02856	.05093	00619	.01110	.02082
2.000	2.550	-2.02553	475.01364	.03784	.05093	02476	.01134	.02151
2.000	4.538	-2.02559	475.04942	.05023	. 05093	04953	.01152	.02154
2.000	6.651	-2.02607	475.08521	.09666	.05093	14239	.01190	.02173
2.000	7.619	-2.02638	475.08521	.09958	.03819	16096	.01206	.02167
2.000	8.674	-2.02645	475.04942	.11815	.03819	19810	.01213	.02183
2.000	9.716	-2.02685	475.29992	. 15821	. 02546	29096	.01196	.02227
2.000	10.701	-2.02745	475.12099	.05257	22916	33430	.01194	.02230
2.000	11.748	-2.02785	475.15678	.05187	28009	38382	.01203	.02261
2.000	12.709	-2.02805	475.26413	.06080	30555	42716	.01210	.02284
2.000	13.782	-2.02866	475.26413	.09433	34374	53240	.01217	.02325
2.000	14.830	-2.02902	475.26413	.12811	36284	61907	.01222	.02340
2.000	16.890	-2.02975	475.37149	.12724	42650	68098	.01226	.02391
2.000	18.928	-2.03064	475.37149	.13317	44559	71193	.01262	.02422
2.000	20.981	-2.03053	475.33570	.13918	45833	73669	.01304	.02466
2.000	23.050	-2.03172	475.33570	.12009	49652	73669	.01313	.02507

LASSA TABULATED SOURCE DATA

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BASELINE (LARC UPWT 1 18) LA-63A

(RJ4010) (28 OCT 75)

REFERENCE DATA PARAMETRIC DATA

SREF = BREF = SCALE =	2690.0000 S0 474.8000 II 936.6800 II	NCHES YMRP	0	000 IN. X0 000 IN. Y0 000 IN. Z0)			BETA = SPDBRK = ELEVON =	-2.000 55.000 10.000	BDFLAP = GRITNO = AILRON =	.000 50.000 .000
		RUN NO.	7/ 0	RN/L -	2.00						
MACH 1.500 1.500 1.500 1.500 1.500 1.500 1.500 1.500 1.500	ALPHA -2.133 091 1.968 4.012 6.072 7.081 8.120 9.139 10.177 11.191 12.222 13.244 14.278	CN 07952 .02151 .12443 .22702 .33000 .37921 .43362 .48063 .52950 .58034 .62651 .62786	CA .15158 .15157 .14898 .14541 .14119 .13975 .13861 .13746 .13594 .13438 .13309 .13165 .12961	CLM .02432 .00563 01278 03022 04719 05502 06330 07052 07738 08317 08949 09541 10099	CB'_ .00252 .00273 .00270 .00258 .00258 .00227 .00231 .00229 .00233 .00242 .00242	CYN005850054900529004660040000398004030040300422004330042300433	CY .03744 .03719 .03698 .03471 .03365 .03457 .03379 .03632 .03656 .03791 .03573	CL07382 .02175 .11924 .21629 .31322 .35909 .40969 .45269 .49715 .54323 .58414 .62967	CD .15444 .15154 .15317 .16094 .17531 .18543 .19846 .21205 .22737 .24445 .26270 .28345 .30472	L/D 47801 .14355 .77847 1.34395 1.78664 1.93650 2.06431 2.13485 2.18657 2.22222 2.22357 2.22144 2.20472	ELEVON 10.00874 9.98045 9.96135 9.97077 9.94897 9.93659 9.90546 9.88026 9.86434 9.8343 9.82367 9.82367 9.80793
1.500 1.500 1.500	16.345 18.373 20.442	.82956 .92513 1.02950 RUN NO.	.12581 .12287 .11777 40/ 0	11215 12230 12904 RN/L =	.00269	00270 00127 .00080	.03766 .03541 .03103	.76063 .83924 .92354	.35417 .40822 .46991	2.14764 2.05587 1.96534	9.74842 9.69483 9.66008
MACH 2.000 2.000 2.000 2.000 2.000 2.000 2.000 2.000 2.000 2.000 2.000 2.000 2.000 2.000	ALPHA -1.560 .496 2.586 4.601 6.668 7.654 8.680 9.7\3 10.69\11.760 12.767 13.776 14.847 16.868 18.937 20.985 23.028	CN06604 .01440 .09594 .17203 .25068 .28742 .32690 .36592 .40425 .44622 .48491 .52628 .56898 .65353 .74065 .82776	CA .13597 .13477 .13289 .13091 .12857 .12754 .12597 .12398 .12215 .12068 .11855 .11661 .11431 .11070 .10717 .10462 .10123	CLM .00364 00619 01637 02574 03458 04103 04376 04596 04841 05105 05327 0528 06228 06228 06906 07534 08129	CBL .00268 .00244 .00244 .00225 .00225 .00213 .00225 .00237 .00250 .00274 .00288 .00290 .00290 .00284 .00284	CYN00286002110016300030000300009 .00002 .00034 .00067 .00151 .00230 .00394 .00544 .00699	CY .04178 .03979 .03756 .03616 .03631 .03619 .03613 .03618 .03571 .03488 .03530 .03390 .03202 .02853 .02624 .02305	CL 06231 .01324 .08985 .16097 .23406 .26787 .30415 .33979 .37460 .41226 .44672 .48337 .52069 .59329 .66578 .73539	CD .13771 .13489 .13709 .15681 .16469 .17386 .18388 .19498 .20909 .2278 .23658 .25629 .29557 .34173 .39412	L/D45250 .09814 .65545 1.11562 1.49267 1.62654 1.74937 1.84791 1.97167 2.00518 2.02607 2.03166 2.03166 2.00727 1.34827 1.86590	ELEVON 9.85742 9.89136 9.83187 9.78208 9.78535 9.76979 9.75104 9.73229 9.73229 9.73247 9.73238 9.70435 9.70435 9.70143 9.68896 9.66995 9.63838

(SJ4010) (28 OCT 75)

REFERENCE DATA

SREF LREF BREF SCALE	:	2690.0000 474.8000 936.6800 .0150	INCHES	YMRP	1076.7000 .0000 375.0000	IN.	YO		_	TA DBRK EVON	7	-2.000 55.000 10.000	BOFLAP = GRITNO = AILRON =	50.000 50.000
				RUN NO.	7/0 R	N/L		2.00						

	RUN NO.	7/ 0 F	RN/L = 2.00					
MACH	ALPHA	BETA	Q(PSF)	AILRON	ELEV-L	ELEV-R	CAC	CAB
1.500	-2.133	-2.00010	477.04383	.01076	10.01950	9.99798	.01601	.03200
1.500	091	-2.00049	476.95802	.00723	9.98767	9.97322	.01618	.03071
1.500	1.968	-2.00068	477.08673	01187	9.94948	9.97322	.01620	.03125
1.500	4.012	-2.00009	477.12963	01488	9.95565	9.98560	.01587	.03035
1.500	6.072	-2.00032	476.82931	.00051	9.94948	9.94845	.01590	. 03064
1.500	7.081	-2.00089	476.78641	.01289	9.94948	9.92369	.01593	.03036
1.500	8.120	-2.00035	476.87221	.03129	9.93675	9.87417	.01588	.02993
1.500	9.139	-5.00040	477.00092	.02466	9.90492	9.85559	.01596	.02962
1.500	10.177	-2.00176	477.04383	.00875	9.87309	9.85559	.01599	.02991
1.500	11.191	-2.00178	477.21544	.00840	9.84763	9.83083	.01604	.02998
1.500	12.222	-2.00257	477.25834	.01750	9.84126	9.80607	.01612	.03023
1.500	13.244	-2.00165	477.38706	.01424	9.82217	9.79369	.01637	.03078
1.500	14.278	-2.00386	477.34415	.03290	9.82853	9.76273	.01249	.03146
1.500	16.345	-2.00504	477.12963	.02283	9.77124	9.72559	.01674	.03232
1.500	18.373	-2.00574	477.25834	.00639	9.70122	9.68845	.01750	.03386
1.500	20.442	-2.00597	477.12963	00979	9.65030	9.66987	.01761	.03442
	RUN NO.	40/0 F	N/L = 2.00					
MACH	ALPHA	BETA	Q(PSF)	AILRON	ELEV-L	ELEV-R	CAC	CAB
2.000	-1.560	-2.02635	475.22835	. 18755	10.04496	9.66987	.01117	.02315
2.000	.496	-2.02623	475.19256	.14722	10.03860	9.74416	.0:161	.02293
2.000	2.586	-2.02555	475.26413	.15580	9.98767	9.67606	.01178	.02255
2.000	4.601	-2.02565	475.33570	.18650	9.95858	9.59558	.01200	.02271
2.000	6.668	-2.02647	475.37149	.19596	9.98131	9.58939	.01215	.02278
2.000	7.654	-2.02646	475.40727	.20516	9.97494	9.56463	.01214	.02259
2.000	8.680	-2.02689	475.40727	.21117	9.96221	9.53987	.01200	.02231
2.000	9.703	-2.02696	475.40727	.21719	9.94948	9.51511	.01187	.02209
2.000	10.684	-2.02751	475.26413	.21719	9.94948	9.51511	.01180	.02199
2.000	11.760	-2.02774	475.33570	.22974	9.96221	9.50272	.01186	.02187
2.000	12.767	-2.02782	475.19256	.22347	9.95585	9.50892	.01187	.02227
2.000	13.776	-2.02877	474.97785	.23877	9.94311	9.4.6558	.01187	.02223
2.000	14.847	-2.02909	475.04942	.25442	9.95585	9.44701	.01175	.02227
2.000	16.868	-2.03040	475.01364	.27317	9.96858	9.42225	.01173	.02208
2.000	18.937	-2.03038	474.97785	.26052	9.94948	9.42844	.01201	.02371
2.001	20.985	-2.03119	474.94207	.24770	9.91765	9.42225	.01262	.02440
2.000	23.028	-2.03135	474.97785	.23471	9.87309	9.40367	.01293	.02475

LAGSA TABULATED SOURCE DATA

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BASELINE (LARC UPWT 1118) LA-63	BASELINE	(LARC	UPWT	1118)	LA-634
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(RJ4011) (28 OCT 75)

REFERENCE DATA

PARAMETRIC DATA

SREF = LREF = BREF = SCALE =	2690.0000 SQ 474.8000 IN 936.6800 IN .0150	CHES YMRP	.0	000 IN. XO 000 IN. YO 000 IN. ZO				ALPHA = SPDBRK = ELEVON =	.000 55.000 -10.000	BDFLAP = GRITNO = AILRON =	.000 50.000 .000
		RUN NO.	58/ 0	RN/L =	2.00						
MACH 1.500 1.500 1.500 1.500 1.500 1.500 1.500 1.500 1.500 1.500 1.500	BETA -6.094 -5.057 -4.054 -3.054 -1.005 012 .981 2.031 3.025 4.039 5.100 6.081 7.092 8.103	CN09499094780943209438092360942309460095550949209680094690969009469	CA .14776 .14880 .14939 .14986 .15103 .15102 .15014 .15051 .15043 .14974 .14829 .14639 .14553	CLM .08678 .08911 .09079 .09143 .09202 .09323 .09347 .09296 .09277 .09178 .09109 .08936 .08755	CBL .00842 .00653 .00492 .00335 .00194 .00054 00094 00243 00377 00522 00676 00845 01028 01196	CYN01515013060113300946007710063700478003520020600030 .00156 .00365 .00575	CY .1225 .10056 .08134 .06029 .03961 .02097 .00028 01615 03507 05575 07592 09748 11854 13741	CL 09472 09452 09406 09412 09398 09415 09334 09530 09467 09654 09576 09451	CD .14793 .14896 .14955 .15002 .15119 .15179 .15118 .15046 .15067 .15059 .14990 .14846 .14656	L/D 64033 63455 62895 62739 60921 61272 62272 62104 63336 62833 64109 62999 64504 64488	ELEVON -9.79799 -9.79181 -9.79799 -9.79172 -9.79180 -9.79808 -9.79172 -9.79190 -9.79109 -9.80109 -9.80109 -9.80128
1.300	6.103	RUN NO.	61/ 0	.08305 RN/L =	01346	.00954	16072	09435	. 14569	64758	-9.81046
MACH 2.000 2.000 2.000 2.000 2.000 2.000 2.000 2.000 2.000 2.000 2.000	BETA -6.081 -5.083 -4.041 -3.061 -2.005 -1.012 019 1.013 2.007 2.999 4.052 5.094 6.076 7.069 8.098	CN0563205745056280576205736057950580505916058960605605892058730581205897	CA .13195 .13295 .13330 .13366 .13393 .13330 .13289 .13415 .13368 .13302 .13234 .13149 .13054 .13060 .13107	CLM .04234 .04416 .04557 .04691 .04790 .04882 .04929 .04938 .04731 .04576 .04380 .04500 .04015 .03891	CBL .00767 .00644 .00507 .00350 .00209 .00072 00207 00207 00351 00480 00695 00931 01057 01176	CYN009170075900584004100023400117 .00052 .00198 .00317 .00464 .00669 .00834 .00999 .01158 .01313	CY .11752 .09792 .07773 .05840 .03730 .01925 00034 01902 03819 05744 07907 09977 12022 14064 16169	CL0574605860058810585405921059210603306012061710600705988060620592606014	CD .13146 .13245 .13278 .13314 .13342 .13279 .13238 .13363 .13316 .13249 .13182 .13097 .13001 .13008 .13008	L/D4371344247432894417143874445134473045147451534657745570457184662646668	ELEVON -9.84168 -9.84486 -9.84796 -9.85105 -9.85105 -9.85105 -9.85114 -9.85114 -9.85114 -9.85124

ORIGINAL PAGE IS OF POOR QUALITY

(SJ4011) (28 OCT 75)

PARAMETRIC DATA

REFERENCE DATA

LREF .	2690.0000 474.8000 936.6800 .0150	INCHES	YMRP	•		IN.	YO	ALPHA SPDBRK ELEVON	=		BDFLAP GRITNO AILRON		.000 50.000 .000
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	RUN NO.	28/ 0 R	N/L = 2.00					
MACH 1.500 1.500 1.500 1.500 1.500 1.500 1.500 1.500 1.500 1.500 1.500	BETA -6.094 -5.057 -4.054 -3.054 -1.999 -1.005 012 .981 2.031 3.025 4.039 5.160 6.081 7.092 8.103	ALPHA -10117 -09962 -09901 -09965 -09734 -09807 -09909 -09647 -098409 -09819 -09892 -10075 -10190	Q(PSF) 476.82931 476.87221 476.74350 476.87221 476.87221 476.91512 476.91512 476.91512 476.91512 476.74350 476.74350 476.74350 476.74350 476.74350	AILRON2024!1992320241202322086920869202322055120860199311963219631	EL EV-L -10.00040 -9.99404 -10.00040 -9.99404 -10.00040 -10.00040 -10.00040 -9.99404 -10.00040 -10.00040 -10.00040 -10.00040 -10.00040	ELEV-R -9.59558 -9.59558 -9.59558 -9.59558 -9.58320 -9.58939 -9.58939 -9.58939 -9.58939 -9.58939 -9.60178 -9.60178 -9.601416	CAC .01584 .01583 .01579 .01571 .01574 .01571 .01564 .01571 .01584 .01602 .01617 .01622 .01642 .01659	CAB .03333 .03396 .03436 .03440 .03443 .03453 .03500 .03571 .03537 .03464 .03467 .03469 .03572
	RUN NO.	61/ 0 Rt	N/L = 2.00					
MACH 2.000 2.000 2.000 2.000 2.000 2.000 2.000 2.000 2.000 2.000 2.000 2.000 2.000	BETA -6.081 -5.083 -4.041 -3.061 -2.005 -1.012 019 1.013 2.007 2.999 4.052 5.094 6.076 7.069 8.098	ALPHA . +9901 . +9873 . 51547 . 51299 . 50266 . 50089 . 50121 . +9993 . 50090 . +9607 . +9804 . 50038 . 50115 . 50268	Q(PSF) 475.55041 475.37149 475.37149 475.2835 475.19256 475.26413 475.29992 475.29992 475.29992 475.29992 475.29992 475.29992 475.29992	AILRON - 18419 - 18737 - 18737 - 18428 - 17800 - 18118 - 18118 - 18118 - 18116 - 18746 - 19055 - 19055 - 19436	ELEV-L -10.02587 -10.03223 -10.03223 -10.03223 -10.0323 -10.03223 -10.03223 -10.03223 -10.03223 -10.03860 -10.03860 -10.03860 -10.03860 -10.03860 -10.03860	ELEV-R -9.65749 -9.65749 -9.66368 -9.66987 -9.66987 -9.66987 -9.66987 -9.66987 -9.66368 -9.66368 -9.66368 -9.65749 -9.66368	CAC .01130 .01111 .01079 .01089 .01088 .01075 .01082 .01080 .01084 .01095 .01110	CAB .02181 .02168 .02174 .02149 .02174 .02202 .02218 .02149 .02233 .02284 .02300 .02343 .02384 .02399

DA	75	 NOV	75

LAGSA TABULATED SOURCE DATA

PAGE 23

SASELINE (LARC UPHT 1118) LA-63A

(RJ4012) (28 OCT 75)

REFERENCE DATA

SREF = LREF = BREF = SCALE =	2690.0000 474.8000 936.6800 .0150	INCHES YMRP		7000 IN. X0 0000 IN. Y0 0000 IN. Z0				ALPHA = SPDBRK = ELEVON =	.000 55.000 .000	BDFLAP = GRITNO = AILRON =	.000 50.000 .000
		RUN NO.	59/ 0	RN/L =	2.00						
MACH	BETA	CN	CA	CLM	CBL	CYN	CY	CL	CD	L/D	ELEVON
1.500			. 13805	.04578	.00743	01365	.11876	03597	.13811	26045	01247
1.500			.13944	.04784	.00597	01157	.09771	03476	. 13949	24918	00602
1.500			.14093	.04973	.00432	01000	.07781	03691	. 14099	26177	01548
1.500	-3.036		.14234	.05043	.00272	00831	. 05831	03604	. 14239	25309	01229
1.500	-2.018		.14386	.05155	.00132	00651	.03782	03750	. 14391	26055	01221
1.500	-1.005		. 14456	.05256	.00017	00533	.01861	03826	.14461	26460	01221
1.500	013		.14481	.05266	00130	00449	.00138	03664	.14486	25297	01212
1.500	.981	03752	.14480	. v5235	00260	00320	01718	03730	. 14486	25752	00902
1.500	2.049		.14471	.05205	00371	00177	03397	03675	. 14475	25388	.00017
1.500	3.025		. 14460	.05111	00546	00039	05572	03594	. 14466	24843	.00637
1.500	4.039		.14413	.05003	00678	.00136	07611	03625	.14419	25140	.00327
1.500	5.118		. 14352	.04875	00961	.00287	09493	03663	. 14357	25516	.00955
1.500	6.080		. 14262	.04692	01022	.00456	11443	03950	. 14267	26988	.01256
1.500	7.074		.14131	.04421	01179	.00683	13664	03/39	. 14137	26446	.01875
1.500	8.084	03779	. 14044	.04190	01346	.00849	15787	03755	.14051	26727	.04050
		RUN NO.	65/ 0	RN/L =	2.00						
MACH	BETA	CN	CA	CLM	CBL	CYN	CY	CL	CD	L/0	ELEVON
2.000	-6.082		.12709	.01610	.00768	00879	.11774	02056	. 12692	16196	.01892
2.000	-5.064		. 12807	.01754	.00651	00715	.09747	02086	. 12789	16313	.01574
2.000	-4.041	02022	.12873	.01941	.00496	00551	.07728	02135	.12854	16611	.01574
2.000	-3.061	02149	.12980	.02069	.00329	00366	. 05732	02263	. 12960	17462	.01256
2.000	-5.006		.13022	.02209	.00190	00213	.03716	02147	.13004	16514	.01892
2.000	-1.050		.13007	.02269	.00062	00106	.01914	02214	. 12988	17047	.02202
2.000	019		.13001	.02320	00094	.00063	00043	02175	. 12982	16756	.01574
2.000	.975		.13010	.02310	00243	.00186	01904	02320	.12990	17861	.01574
2.000	2.008		.13025	.02241	00363	.00322	03796	02355	. 13004	18105	.01574
2.000	3.019		.13000	.02108	00516	.00469	05803	02329	.12980	17944	.01264
2.000	4.052		. 12948	.01966	00693	.00644	07814	02336	. 12928	18067	.01574
2.000	5.094	02282	.12900	.01755	00849	.00827	09946	02395	. 12880	18592	.02202
2.000	6.075		.12826	.01601	00973	.00979	11898	02387	. 12805	18638	.02511
5.000	7.069		. 12743	.01367	01114	.01134	13940	02287	. 12723	17972	.02812
2.000	8.080	02129	. 12631	.01156	01246	.01289	16131	02240	. 12612	17762	.03122

(SJ4012) (28 OCT 75)

REFERENCE DATA

PARAMETRIC DATA

	HE ENENCE D	~ ~						FAR	ANCINIC DATA	
SREF = LREF = BREF = SCALE =	2690.0000 SQ.FT. 474.8000 INCHES 936.6800 INCHES .0150	YMRP .	.0000	0 IN. XO 0 IN. YO 0 IN. ZO			SPD	HA = BRK = 5! VON =	.000 BDFLAP : 5.000 GRITNO : .000 AILRON :	50.000
		RUN NO.	29/ 0	RN/L = 2.00						
	MACH	BETA	ALPHA	Q(PSF)	AILRON	ELEV-L	ELEV-R	CAC	CAB	
	1.500	-6.056	09054	476.91512	.00610	00637	01857	.01534	.03306	
	1.500	-5.058	08057	476.74350	.01875	.01273	02476	.01527	.03248	
	1.500	-4.035	08141	476.87221	.01548	.00000	03095	.01531	.03152	
	1.500	-3.036	08135	476.87221	.01866	.00637	03095	.01529	.03018	
	1.500	-2.018	08297		.02494	.01273	03714	.01524	.02858	
	1.500	-1.005	07686	477.08673	.02494	.01273	03714	.01516	.02781	
	1.500	013	07913	476.91512	.03122	.01910	04333	.01520	.02761	
	1.500	.981	08557		.02812	.01910	03714	.01537	.02810	
	1.500	2.049	07361	477.04383	.01256	.01273	01238	.01558	.02881	
	1.500	3.025	09440		.00637	.01273	.00000	.01561	.02912	
	1.500	4.039	08648	477.08673	.00946	.01273	00619	.01559	.02938	
	1.500	5.118	08334		.00955	.01910	.00000	.01572	.02975	
	1.500	6.080	08164	477.04383	.00017	.01273	.01238	.01587	.03016	
	1.500	7.074	09467		00602	.01273	.02476	.01609	.03062	
	1.500	8.084	09570		02141	.01910	.06191	.01632	.03080	
		RUN NO.	65/ 0	N/L = 2.00						
	MACH	BETA	ALPHA	Q(PSF)	AILRON	ELEV-L	ELEV-R	CAC	CAB	
	2.000	-6.082	.50221	475.22835	.00654	.02546	.01238	.01131	.02186	
	2.000	-5.064	.50496	475.44306	.00336	.01910	.01238	.01121	.02168	
	2.000	-4.041	.50518		.00336	.01910	.01238	.01114	.02146	
	2.000	-3.061	.50606	475.29992	.00017	.01273	.01238	.01112	.02083	
	2.000	-2.006	.50407		.00654	.02546	.01238	.01116	.02077	
	2.000	-1.050	.50192	475.47884	.00345	.02546	.01857	.01116	.02074	
	2.000	019	.50549	475.62199	.00336	.01910	.01238	.01125	.02078	
	2.000	.975	.50214	475.69356	.00336	.01910	.01238	.01134	.02122	
	2.000	2.006	.50184	475.62199	.00336	.01910	.01238	.01134	.02122	
	2.000	3.019	.50138	475.65777	.00645	.01910	.00619	.01137	.02122	
	2.000	4.052	.50121	475.69356	.00336	.01910	.01238	.01137	.02128	
	2.000	5.094	.50008		.00345	.02546	.01957	.01146	.02147	
	2.000	6.075	.50217		.00035	.02546	.02476	.01158	.02172	
	2.000	7.069	.50244		00902	.01910	.03714	.01173	.02196	
	2.000	8.080	.50259	475.29992	01212	.01910	.04333	.01192	.02230	

LAGSA TABULATED SOURCE DATA

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BASELINE (LARC UPWT 1118) LA-63A

(RJ4013) (28 OCT 75)

REFERENCE DATA

PARAMETRIC DATA

SREF = LREF = BREF = SCALE =	2690.0000 SQ. 474.8000 INC 936.6800 INC .0150	CHES YMRP	• .0	7000 IN. X0 1000 IN. Y0 1000 IN. Z0				ALPHA = SPDBRK = ELEVON =	.000 55.000 10.000	BDFLAP = GRITNO = AILRON =	.000 50.000 .000
		RUN NO.	30/ 0	RN/L =	2.00						
MACH 1.500 1.500 1.500 1.500 1.500 1.500 1.500 1.500 1.500 1.500 1.500	BETA -6.075 -5.077 -4.054 -3.055 -1.981 -1.025 .006 1.020 2.032 3.006 4.039 5.099 6.081 7.093	CN .02495 .02278 .02198 .02244 .02326 .02168 .02153 .02145 .0237 .0237 .02392 .02242 .02241	CA .14900 .15048 .15139 .15176 .15200 .15211 .15184 .15178 .15187 .15187 .15186 .15022 .14900 .14768	CLM .00064 .00294 .00473 .00555 .00643 .00760 .00814 .00783 .00712 .00619 .00536 .00401 .00178	CBL .00849 .00696 .00524 .00358 .00201 .00079 00064 00227 00407 00549 00697 00871 01020 01204	CYN01279011170091400774006220053300415003020019000050 .00137 .00312 .00459 .00639	CY .11618 .09772 .07634 .05746 .03769 .02001 .00117 01762 03577 05487 07564 09541 11514 13518	CL .02520 .02305 .02255 .02266 .02346 .02191 .02167 .02260 .02413 .02264 .02268	CD .14896 .15044 .15135 .15172 .15196 .15207 .15181 .15175 .15184 .15133 .15018 .14897 .14764	L/D .16920 .15320 .14698 .14936 .15437 .14419 .14310 .14278 .14891 .15894 .14959 .15103 .14434 .14318	ELEVON 10.01537 10.01227 10.01227 10.01227 10.01227 10.01227 10.01227 10.01227 10.01227 10.01227 10.01227 10.01227 10.01227
1.509	8.104	.02226 RUN NO.	63/ 0	00275 RN/L =	01346	.00811	15761	.02255	. 14633	.15410	10.02147
MACH 2.000 2.000 2.000 2.000 2.000 2.000 2.000 2.000 2.000 2.000 2.000 2.000	BETA -6.081 -5.064 -4.060 -3.023 -2.006 -1.032 019 .974 2.026 3.019 4.033 5.113 6.076 7.088 8.080	CN .01721 .01763 .01577 .01630 .01523 .01550 .01535 .01550 .01547 .01527 .01597 .01595 .01595 .01595 .01595 .01595 .01595 .01495	CA .13265 .13297 .13311 .13378 .13491 .13492 .13565 .13565 .13562 .13547 .135647 .13393 .13318 .13318	CLM0127800927007830065000550005500058000580006470084701061012720150301680	CBL .00843 .00688 .00541 .00371 .00219 .00100 00072 00214 00347 00517 00671 00629 00974 01136 01244	CYN008390067600518003380019200091 .00219 .00327 .00497 .00644 .00820 .00957 .01133	CY .11614 .09654 .07659 .05701 .03743 .01940 01667 01968 03853 05868 07843 09912 11949 14048 16150	CL .01605 .01646 .01460 .01512 .01503 .01431 .01476 .01430 .01293 .01408 .01478 .01364 .01392	CD .13279 .13312 .13325 .13505 .13505 .13501 .13578 .13596 .13559 .13477 .13407 .13407	L/D .12085 .12367 .10956 .11287 .1129 .10593 .10953 .109532 .10444 .11021 .10234 .10522 .10502	ELEVON 10.00857 10.00857 9.99911 10.00229 9.99911 10.00229 10.00229 10.00229 10.00229 10.00229 10.00229 10.00229 9.99601 9.99601 9.99601

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(SJ4013) (28 OCT 75)

REFERENCE DATA

LREF	:	2690.0000 474.8000 936.6800 .0150	INCHES	YMRP	.0000	IN.	YO			ALPHA SPOBRK ELEVON	-	.000 55.000 10.000	BOFLAP : GRITNO : AILRON :	=	.000 50.000 .000
				RUN NO.	30/0 R	N/L		2.00							

	RUN NO.	30/ 0 F	N/L = 2.00					
MACH	BETA	ALPHA	Q(PSF)	AILRON	ELEV-L	ELEV-R	CAC	CAB
1.500	-6.075	09754	476.70060	.03596	10.05133	9.97941	.01571	.03204
1.500	-5.077	09977	476.91512	.03906	10.05133	9.97322	.01660	.03152
1.500	-4.054	10040	476.78641	.03906	10.05133	9.97322	.01645	.03108
1.500	-3.055	08406	476.87221	.03906	10.05133	9.97322	.01635	.03090
1.500	-1.981	07650	476.91512	.03906	10.05133	9.97322	.01625	.03084
1.500	-1.025	08556	476.87221	.03906	10.05133	9.97322	.01618	.03121
1.500	.006	08802	476.78641	.03906	10.05133	9.97322	.01614	.03123
1.500	1.020	08609	476.95802	.03906	10.05133	9.97322	.01615	.03156
1.500	2.032	08447	476.91512	.04224	10.05770	9.97322	.01628	.03209
1.500	3.006	08088	476.91512	.03906	10.05133	9.97322	.01639	.03149
1.500	4.039	08142	476.78641	.03906	10.05133	9.97322	.01650	.03148
1.500	5.099	10189	476.78641	.04215	10.05133	9.96703	.01656	.03192
1.500	6.081	07961	476.82931	.03897	10.04496	9.96703	.01670	.03230
1.500	7.093	10218	475.87221	.02968	10.04496	9.98560	.01687	.03280
1.500	8.104	11302	476.78641	.02349	10.04496	9.99798	.01710	.03314
	RUN NO.	63/ 0 F	N/L = 2.00					
MACH	BETA	ALPHA	Q(PSF)	AILRON	ELEV-L	ELEV-R	CAC	CAB
2.000	-6.081	.50008	475.37149	00180	10.00677	10.01036	.01189	.02369
2.000	-5.064	.50315	475.37149	00180	10.00677	10.01036	.01173	.02391
2.000	-4.060	.50453	475.44306	00507	9.99404	10.03417	.01165	.02432

MACH	BETA	ALPHA	Q(PSF)	AILRON	ELEV-L	ELEV-R	CAC	CAB
2.000	-6.081	.50008	475.37149	00180	10.00677	10.01036	.01189	.02369
2.000	-5.064	.50315	475.37149	00180	10.00677	10.01036	.01173	.02391
2.000	-4.060	.50453	475.44306	00507	9.99404	10.03417	.01165	.02432
2.000	-3.023	.50784	475.33570	00188	10.00040	10.00417	.01163	.02406
2.000	-2.006	.50785	475.44306	00507	9.99404	10.00417	.01161	.02312
2.000	-1.032	.50582	475.47884	00507	9.99404	10.00417	.01161	18550.
2.000	019	.50626	475.47884	00188	10.00040	10.00417	.01154	.02250
2.000	.974	.50613	475.44306	00188	10.00040	10.00417	.01144	15550.
2.000	2.026	.50916	475.55041	00188	10.00040	10.00417	.01144	.02209
2.000	3.019	.50776	475.47884	00188	10.00040	10.00417	.01140	.02196
2.000	4.033	.50779	475.55041	00188	10.00040	10.00417	.01153	14550.
2.000	5.113	.51031	475.51463	00197	9.99404	9.99798	.01174	.02275
2.000	6.076	.49234	475.55041	00107	9.99404	9.99798	.01189	.02319
2.000	7.088	.48998	475.55041	00197	9.99404	9.99798	.01210	.02372
2.000	8.080	.49111	475.51463	.00431	10.00040	9.99179	.01233	.02350





LAGSA TABULATED SOURCE DATA

PAGE 27

BASELINE (LARC UPWT 1118) LA-63A

(RJ4014) (28 OCT 75)

			 -	
PARA	ME	TR	134	A

SREF = LREF = BREF = SCALE =	2690.0000 5 474.8000 936.6800 .0150	INCHES YMRP	0	7000 IN. X0 0000 IN. Y0 1000 IN. Z0				ALPHA = SPOBRK = ELEVON =	6.000 55.000 -10.000	BDFLAF = GRITNO = AILRON =	.000 50.000 .000
		RUN NO.	27/ 0	RN/L =	2.00						
MACH 1.500 1.500 1.500 1.500 1.500 1.500 1.500 1.500 1.500 1.500 1.500	BETA -6.055 -5.037 -4.073 -3.055 -2.019 -1.006 013 .980 2.012 3.024 4.037 6.078 7.091 8.083	CN .21127 .21288 .21253 .21399 .21298 .21305 .21231 .21098 .21213 .21062 .21112 .20997 .21128 .20990	CA .13509 .13595 .13721 .13749 .13703 .13598 .13593 .13689 .13712 .13755 .13803 .13867 .13789 .13672 .13519	CLM .03507 .03764 .63891 .040124 .04124 .04188 .04231 .04244 .04185 .04155 .04055 .03508 .03676 .03504	CBL .01050 .00831 .00670 .00480 .00274 .00094 00098 00258 00472 00680 00858 01060 01245 01490 01659	CYN010300084900745006560058500512004790043000263002630015700029 .00146 .00322	CY .10943 .08817 .07231 .05417 .03781 .01968 .00251 01324 0308 04826 06642 08401 10368 12551 12651	CL .19584 .19730 .19685 .1985 .19726 .19746 .19673 .19531 .19531 .19534 .19413 .19534 .19413	CD .15663 .15771 .15829 .15938 .15981 .15777 .15763 .15841 .15976 .15959 .16010 .15959 .15915 .15815	L/D 1.25039 1.25104 1.23894 1.24372 1.24274 1.25156 1.24810 1.23271 1.23737 1.22537 1.22537 1.22506 1.21258 1.22605 1.22840	ELEVON -9.86362 -9.36034 -9.86334 -9.86334 -9.86334 -9.86334 -9.86034 -9.86025 -9.86025 -9.86335 -9.86335
		RUN NO.	52/ 0	RN L =	2.00		.,,,,,,		.,,,,,,	1.23000	3.00333
MACH 2.000 2.000 2.000 2.000 2.000 2.000 2.000 2.000 2.000 2.000 2.000 2.000	BETA -6.082 -5.083 -4.061 -3.061 -1.937 -1.032020 .974 2.025 2.998 4.052 5.074 6.093 7.087 8.078	CN .18045 .18103 .18212 .19038 .18163 .17992 .17930 .17803 .17787 .17770 .17955 .17862 .17914 .18001 .18122	CA .11956 .12039 .12116 .12136 .12113 .12096 .12106 .12112 .12137 .12145 .12145 .12066 .12009 .11872 .11731	CLM .01544 .01699 .01755 .01757 .01782 .01786 .01807 .01810 .01842 .01801 .01753 .01667 .01521 .01327	CBL .00711 .00596 .00463 .00359 .00195 .00095 00171 00312 00452 00588 00728 00728 00939 01108	CYN0036400302U62130014600062 .00000 .00038 .00093 .00161 .00255 .00331 .00415 .00488 .00540	CY .10565 .08802 .07008 .05270 .03510 .01743 .00105 01539 03362 05007 07064 08855 10555 12368 114466	CL .16544 .16590 .16689 .16514 .16640 .16472 .16412 .16285 .16265 .16246 .16434 .16370 .16406	CD .13959 .14051 .14141 .14132 .14096 .14087 .14112 .14118 .14110 .14049 .13999 .13871 .13745	L/0 1.18517 1.18018 1.16781 1.17746 1.16858 1.16426 1.15600 1.15254 1.15075 1.16466 1.16521 1.17201 1.19020	ELEVON -9.81613 -9.81295 -9.81295 -9.81931 -9.82241 -9.82232 -9.82550 -9.82550 -9.82550 -9.82241 -9.80985 -9.79738 -9.79437

(SJ4014) (28 OCT 75)

PARAMETRIC DATA

BREF	100 100	2690.0000 SQ.FT. 474.8000 INCHES 936.6800 INCHES	YMRP	*	.0000	IN.	YO	SPOBRK =	55.000	BDFLAP = GRITNO = AILRON =	50.000
SCALE		.0150	ZMHP	*	3/5.0000	IN.	20	ELEVON •	-10.000	AILRON =	.000

	RUN NO.	27/ 0 F	RN/L = 2.00					
MACH 1.500 1.500 1.500 1.500 1.500 1.500 1.500 1.500 1.500 1.500 1.500 1.500	BETA -6.055 -5.037 -4.073 -3.055 -2.016 013 980 2.012 3.024 4.037 5.097 6.078 7.091 8.083	ALPHA 6.05514 6.07395 6.06245 6.07922 6.07684 6.07278 6.07366 6.06488 6.06865 6.07199 6.07083 6.07085	Q(PSF) 476.65770 476.74350 476.74350 476.78641 476.78641 476.74350 476.65770 476.65770 476.61479 476.48608 476.74350 476.74350 476.74350 476.74350 476.74350	AILRON17189171891718917189168801718917189165621656216252	ELEV-L -10.03860 -10.03223 -10.03223 -10.03223 -10.03223 -10.03223 -10.03223 -10.03223 -10.02587 -10.02587 -10.02587 -10.02587	ELEV-R -9.69464 -9.68845 -9.68845 -9.68845 -9.69464 -9.69464 -9.68845 -9.68464 -9.69464 -9.69464 -9.69464 -9.69464 -9.70083 -9.70083	CAC .01624 .01593 .01575 .01558 .01557 .01511 .01504 .01526 .01538 .01571 .01588 .01674	CAB .03298 .03283 .03173 .03111 .03145 .03216 .03216 .03147 .03157 .03098 .03054 .03082 .03166
	RUN NO.	52/ 0 R	N/L = 2.00					
HACH 000.5 000.5 000.5 000.5 000.5 000.5 000.5	BETA -6.082 -5.083 -4.061 -3.061 -1.987 -1.032 -025 -025 2.998 4.052	ALPHA 6.62816 6.63832 6.64119 6.64006 6.64237 6.63369 6.63348 6.63810 6.63989 6.64121	Q(PSF) 475.26413 475.19256 475.15256 475.15678 475.26413 475.22835 475.19256 475.33570 475.15678 475.22835 475.22835	AILRON 15245 14926 15563 15563 15253 14626 14944 14944 15253	ELEV-L -9.96858 -9.96221 -9.97494 -3.97494 -9.97494 -9.96858 -9.96858 -9.96858 -9.97494 -9.97494	ELEV-R -9.66368 -9.66368 -9.66368 -9.66368 -9.66368 -9.67606 -9.67606 -9.67606 -9.67606 -9.67606	CAC .01166 .01161 .01157 .01149 .01137 .01117 .01117 .01124 .01140 .01149 .01164	CAB .02234 .02236 .02211 .02205 .02193 .02155 .02159 .02177 .02180 .02196
5.000 5.000 5.000	5.074 6.093 7.087 8,078	6.63782 6.63449 6.63054 6.63038	475.33570 475.37149 475.33570 475.33570	15236 15846 16784 17084	-9.96221 -9.95585 -9.96221 -9.95585	-9.65749 -9.63892 -9.62654 -9.61416	.01166 .01166 .01184 .01187	.02174 .02158 .02196 .02202

PAGE 2

BASEL INE	71 ADO	4 1834 47		
BASEL INC.	I LANCE	Charles 1	11181	1 A-634

(RJ4015) (28 OCT 75)

REFERENCE DATA

PARAMETRIC DATA

B	REF = REF = CALE =	2690.0000 SQ. 474.8000 INC 936.5800 INC .0150	CHES YMRP		7000 IN. X0 0000 IN. X0 1000 IN. Z0				ALPHA = SPDBRK = ELEVON =	6.000 55.000 .000	BDFLAP = GRITNO =	.000 50.000 .000
			RUN NO.	26/ 0	RN/L =	2.00						
	MACH 1.500 1.500 1.500 1.500 1.500 1.500 1.500 1.500 1.500 1.500 1.500 1.500	BETA -6.055 -5.057 -4.054 -3.016 -2.000 -1.007 014 .980 2.031 3.023 4.055 5.098 6.098 7.091 8.082	CN .26813 .26715 .26943 .26936 .27105 .26767 .26556 .26785 .26562 .26760 .26419 .26830 .26390 .26505	CA .13123 .13282 .13294 .13240 .13055 .13121 .13185 .13189 .13157 .13197 .13176 .13105 .12993 .12883	CLM 00263 00113 00045 .00041 .00192 .00262 .00262 .00267 .00114 .00105 00021 00124 00224	CBL .00996 .00808 .00609 .00441 .0028 .00056 00152 00325 00511 00691 01084 01251 01476 01654	CYN00859007.40062500586005860046000422003950039900269001790009800255	CY .10551 .08665 .07000 .05124 .03526 .01889 .00290 01362 03112 04652 06442 08337 10358 12262 14268	CL .25276 .25161 .25385 .25384 .25536 .25236 .25116 .25237 .25110 .25216 .24874 .25286 .24858 .24945	CD .15983 .16070 .16016 .15865 .15812 .15870 .15950 .15929 .15940 .15819 .15719 .15584	L/D 1.59133 1.56936 1.57967 1.58484 1.61164 1.59594 1.58264 1.58227 1.57640 1.58534 1.56260 1.58639 1.57145 1.58955	ELEVON .00310 .00310 .00310 .00310 .00619 .00000 .00000 .00000 .00310 .00626 .00310 .00937 .00937
	MACH 2.000 2.000 2.000 2.000 2.000 2.000 2.000 2.000 2.000 2.000 2.000 2.000	BETA -6.082 -5.045 -4.060 -3.051 -2.006 -1.051020 .954 2.005 3.036 4.031 5.093 6.075 7.068 8.078	RUN NO. CN .21496 .21377 .21310 .21301 .21237 .21251 .21297 .21202 .21231 .20992 .21190 .21087 .21308 .21385 .21435	53/ 0 CA 11982 .12014 .12078 .12109 .12111 .12119 .12103 .12068 .12056 .12056 .12056 .11955 .11846 .11727	CLM0065300684006350062200594005760057400594005940057400574005740057400574	2.00 CBL .00747 .00626 .00490 .00339 .00193 .00067000680019200334004840063100796009050102901208	CYN003370028i0019i0013000046 .00009 .00103 .00164 .00254 .00333 .00408 .00465 .00522	CY .10537 .08798 .06912 .05243 .03447 .01778 .00045 -01530 03200 05899 05893 08782 10597 12372	CL . 19979 . 19846 . 19773 . 19761 . 19695 . 19710 . 19560 . 19563 . 19593 . 19458 . 19660 . 19566 . 19797 . 19689 . 19959	CD .14287 .14454 .14464 .14464 .14461 .14461 .14401 .14309 .14227 .14117 .13946	L/D 1.39846 1.37780 1.36760 1.36969 1.35984 1.36001 1.35969 1.36362 1.35113 1.36658 1.36740 1.39157 1.40889 1.43101	ELEVON00301006190092901956012380123801238012380123801238009290092900929

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BASELINE (LARC UPWT 1118) LA-63A

(SJ4015) (28 OCT 75)

REFERENCE DATA

PARAMETRIC DATA

SREF = BREF = SCALE =	2690.0000 SQ.FT. 474.8000 INCHES 936.6800 INCHES	XMRP = YMRP = ZMRP =		IN. YO				RK = 5	6.000 BDFLAP 5.000 GRITNO .000 AILRON	= !	.000 50.000 .000
	MACH 1.500 1.500 1.500 1.500 1.500 1.500 1.500 1.500 1.500 1.500 1.500	RUN NO. BETA -6.055 -5.057 -4.054 -3.018 -2.000 -1.007014 .980 2.031 3.023 4.055 5.098 6.098 7.091 8.082	ALPHA 5.06687 6.06915 6.07358 6.07437 6.07953 6.07138 6.07805 6.08369 6.06271 6.07285 6.07497 6.07075 6.06245 6.06073 6.05550	N/L = 2.00 0(PSF) 476.51479 476.35737 476.65770 476.70060 476.61479 476.61479 476.61479 476.70060 476.52899 476.57189 476.57189 476.5770	A!LRON003100031000310006190031000628 .00000 .00000003100031000310003010030100301	ELEY-L .00000 .00000 .00000 .00000 .00000 00637 .00000 .00637 .00000 .00637 .00637	ELEV-R .00619 .00619 .00619 .01238 .00619 .00619 .00619 .00619 .00619 .00619 .01238 .01238	CAC .01603 .01607 .01509 .01579 .01510 .01528 .01539 .01551 .01598 .01637 .01637 .01624	CAB .02959 .02870 .02881 .02900 .02874 .02884 .02856 .02856 .02972 .03037 .03055 .03065		
	MACH 2.000 2.000 2.000 2.000 2.000 2.000 2.000 2.000 2.000 2.000 2.000 2.000	RUN NO. BETA -6.082 -5.045 -4.060 -3.061 -2.006 -1.051020 .954 2.005 3.036 4.031 5.093 6.075 7.068 8.078	ALPHA 6.63605 6.63617 6.63218 6.62827 6.63604 6.63155 6.62629 6.63479	N/L = 2.00 Q(PSF) 475.26413 475.33570 475.33570 475.33570 475.33570 475.33570 475.33570 475.29992 475.33570 475.29992 475.33570 475.44306 475.44306 475.51463 475.51463	AILRON .00937 .00619 .00929 .01556 .00920 .01238 .01238 .01556 .01238 .01238 .01556 .01239 .01238	ELEV-L .00637 .00000 .00000 .00637 -00000 .00000 .00000 .00000 .00000 .00000 .00000 .00000	ELEV-R01238012380195702476024760247602476024760247602476024760247602476018570185701857	CAC .01203 .0:205 .0:205 .01196 .01187 .01177 .01186 .01191 .01198 .01214 .01217 .01222 .01235 .01240	CAB .02227 .02209 .02199 .02183 .02171 .02133 .02146 .02162 .02162 .02163 .02224 .02253 .02259 .02259		

	NOV	

2.000

2.000

7.096

8.077

.25184

.25322

REFERENCE DATA

LAGSA TABULATED SOURCE DATA

(RJ4016) (28 OCT 75)

1.53945

1.56817

. 15314

. 15136

10.01902

10.01902

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BASELINE (LARC UPHT 1118) LA-63A

-.04149

-.04407

. 12493

.12299

-.01078

-.01287

PARAMETRIC DATA 2690.0000 SQ.FT. .000 XMRP = 1076.7000 IN. XC ALPHA = 6.000 BDFLAP = LREF = 474.8000 INCHES 55.000 YMRP = .0000 IN. YO GRITNO = SPDBRK = 50.000 BREF = 936.6800 INCHES ZMRP = 375.0000 IN. 20 ELEVON = AILRON = .000 SCALE = .0150

		RUN NO.	25/ 0	RN/L =	2.00						
MACH 1.500 1.500 1.500 1.500 1.500 1.500 1.500 1.500 1.500 1.500 1.500 1.500	BETA -6.075 -5.059 -4.055 -3.018 -2.000 -1.026 014 .999 2.030 3.023 4.055 5.077 6.078 7.089 8.100	CN .32787 .32743 .32980 .32952 .32854 .33036 .32850 .33063 .32802 .32947 .32806 .32683 .32731 .32511 .32236	CA .14145 .14231 .14270 .14228 .14168 .14169 .14254 .14217 .14183 .14168 .14169 .14185 .14186 .14113 .13972 .13837	CLM0495304854047690465304575045380458404653046990491004999	CBL .00929 .00759 .00557 .00384 .00205 .00045 00100 00274 00440 00642 00806 00986 01171 01376 01568	CYN0076700645005440049100422003800038000387002550010500105 .00227	CY .10428 .08689 .06817 .05304 .03337 .01834 .00199 -01394 02967 04712 06378 08104 10047 12037 14067	CL .31110 .31057 .31287 .31265 .31173 .31350 .31159 .31373 .31121 .31267 .31125 .31058 .30655 .30598	CD .17529 .17609 .17677 .17630 .17560 .17610 .17646 .17567 .17567 .17567 .17568 .17558 .17490 .17324 .17158	L/D 1.77478 1.76369 1.76991 1.77336 1.77525 1.78026 1.76578 1.77896 1.77159 1.771982 1.77174 1.76573 1.77576 1.78113	ELEVON 10.03774 10.03774 10.03146 10.03155 10.03146 10.03137 10.03146 10.03137 10.03447 10.03765 10.04702 10.04702 10.05321 10.05330
		RUN NO.	54/ 0	RN/L =	2.00						
MACH 2.000 2.000 2.000 2.000 2.000 2.000 2.000 2.000 2.000 2.000	BETA -6.082 -5.065 -4.061 -3.024 -2.007 -1.032 -001 .954 2.005 2.998 4.031 5.092 6.093	CN .25244 .25166 .25155 .25005 .24986 .25016 .25102 .24988 .24926 .25018 .24902 .24940 .24940	CA .12696 .12818 .12890 .12926 .12925 .12925 .12891 .12876 .12852 .12825 .12754 .12648	CLM0390503726036450369403579035690354103541036170370703904	CBL .00747 .00624 .00458 .00318 .00168 .00025 0082 00345 00503 00644 00811 00935	CYN0028700232001520009200053 .00087 .00124 .00185 .00264 .00338 .00483	CY .10507 .08741 .06859 .05215 .03423 .01725 .00031 01550 03250 05071 06862 08740 10523	CL .23609 .23518 .23499 .23347 .23357 .23355 .23443 .23331 .23270 .23365 .23252 .23299 .23497	CD .15526 .15637 .15707 .15725 .15719 .15728 .15716 .15692 .15672 .15659 .15617 .15549 .15463	L/D 1.52067 1.50402 1.49601 1.48473 1.48490 1.49167 1.48487 1.48483 1.49213 1.49842 1.51960	ELEVON 10.02177 10.01876 10.01558 10.01885 10.01569 10.00947 10.01266 10.01266 10.01266 10.01266 10.01266

.00536

.00701

-.12243

-.14331

.23575

.23735

PAGE 32

BASELINE (LARC UPWT 1119) LA-63A

(SJ4016) (28 OCT 75)

REFERENCE DATA

ALPHA = 6.000 BDFLAP = .000 SPDBRK = 55.000 GRITNO = 50.000 ELEVON = 10.000 AllRON = .000

PARAMETRIC DATA

SREF = 2690.0000 SQ.FT. XMRP = 1076.7000 IN. X0 LREF = 474.8000 INCHES YMRP = .0000 IN. Y0 BREF = 936.6800 INCHES ZMRP = 375.0000 IN. Z0 SCALE = .0150

RUN NO. 25/ 0 RN/L = 2.00

MACH 1.500 1.500 1.500 1.500 1.500 1.500 1.500 1.500	BETA -6.075 -5.058 -4.055 -3.018 -2.000 -1.026 014 .999 2.030 3.023	ALPHA 6.06284 6.06232 6.06912 6.06537 6.07133 6.06778 6.07354 6.07354 6.05955 6.06041	Q(PSF) 476.40027 476.52899 476.57189 476.48608 476.48608 476.48608 476.57189 476.52899	AILRON .06452 .06452 .06443 .07071 .06443 .06125 .05815 .05816	ELEV-L 10.10225 10.10225 10.09589 10.10225 10.09589 10.08952 10.08952 10.08952	ELEV-R 9.97322 9.97322 9.96703 9.96703 9.96703 9.96703 9.96703 9.97322 9.97322	CAC .01655 .01653 .01632 .01632 .01601 .01588 .01586 .01586 .01586	CAB .03058 .03050 .03034 .03062 .03091 .03062 .03003 .03003
1.500	3.023	6.06041	476.52899	.05508	10.0.352	9.97941	.01602	.03078
1.500	4.055 5.077	6.05912	476.61479	. 05824	10.09589	9.97941	.01627	.03069
1.500 1.500 1.500	6.078 7.089 8.100	6.06003 6.05579 6.05057	476.61479 476.27156 476.52899	.05523 .04904 .05532	10.10225 10.10225 10.10862	9.99179 10.00417 9.99798	.01712 .01704 .01700	.03182

RUN NO. 54/ 0 RN/L = 2.00

MACH	BETA	ALPHA	Q(PSF)	AILRON	ELEV-L	ELEV-R	CAC	CAB
2.000	-6.082	6.62894	475.40727	18050	9.84126	10.20227	.01236	.02284
2.000	~5.065	6.62829	475.51463	17113	9.84763	10.18989	.01231	.02278
2.000	-4.061	6.62835	475.62199	17431	9.84126	10.18989	.01226	.02285
2.000	-3.024	6.62605	475.65777	16485	9.85400	10.18370	.01223	.02282
2.000	-2.007	6.62735	475.75513	15804	9.84763	10.18370	.01216	.02285
2.000	-1.032	6.63302	475.69356	16812	9.84126	10.17751	.01200	.02263
2.000	001	6.63882	475.72934	16185	9.84763	10.17132	.01197	.02254
2.000	. 954	6.63646	475.65777	15866	9.85400	10.17132	.01204	.02257
2.000	2.005	6.63915	475.69356	15866	9.85400	10.17132	.01212	.02257
2.000	2.998	6.63910	475.40727	16185	9.84763	10.17132	.01222	.02287
2.000	4.031	6.63712	475.47884	15866	9.85400	10.17132	.01240	.02319
2.000	5.092	6.63262	475.40727	15866	3.85400	10.17132	.01249	.02331
2.000	6.093	6.62646	475.29992	15548	9.86036	10.17132	.01252	.02328
2.000	7.086	6.62303	475.29992	15230	9.86673	10.17132	.01261	.02365
2.000	8.077	6.61894	475.40727	15230	9 86673	10.17132	.01249	.02363

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BASELINE (LARC UPWT 1118) LA-63A

(RJ4017) (28 OCT 75)

REFERENCE DATA

SREF = LREF = BREF = SCALE =	2690.0000 S0 474.8000 IN 936.6800 IN	NCHES YMRP	0	000 IN. X0 000 IN. Y0 000 IN. Z0)			ALPHA = SPDBRK = ELEVON =	10.000 55.000 -10.000	BDFLAP = GRITNO = AILRON =	.000 50.000 .000
		RUN NO.	10/ 0	RN/L =	2.00						
MACH 1.500 1.500 1.500 1.500 1.500 1.500 1.500 1.500 1.500 1.500 1.500	BETA -6.077 -5.079 -4.055 -3.019 -2.001 -1.026 -014 1.000 2.011 3.023 4.057 5.079 6.080 7.092 8.121	CN .41C12 .41343 .41154 .41340 .41281 .41324 .41223 .41144 .40893 .41293 .41141	CA .12695 .12797 .12850 .12847 .12785 .12761 .12732 .12745 .12745 .12748 .12752 .12713 .12637 .12543 .12460	CLM .01026 .01096 .01134 .01173 .01218 .01289 .01278 .01278 .01298 .01257 .01189 .01138 .01066 .01036	CBL .01097 .00864 .00659 .00473 .00262 .00149 00200 00391 00566 00790 01021 01204 01393 01601	CYN0080500744006870055100599004140038700345002500016500093 .00026 .00109	CY .10859 .09092 .07227 .05755 .03917 .02035 .00198 01453 02962 04717 06641 08354 10323 12090 13859	CL .38128 .38435 .38240 .38422 .38323 .38291 .38380 .38423 .38320 .38240 .38263 .38216 .38012 .38421	CD .19734 .19894 .19912 .19944 .19868 .19839 .19829 .19824 .19835 .19824 .19835 .19787 .19654 .19543	L/D 1.93216 1.93196 1.92046 1.92647 1.92889 1.93004 1.93775 1.93195 1.92899 1.92899 1.92899 1.92899 1.92899 1.92899	ELEVON -9.94558 -9.94239 -9.94239 -9.94239 -9.94531 -9.93585 -9.93576 -9.93568 -9.93568 -9.93568 -9.93568
		RUN NO.	43/ 0	RN/L =	2.00						
MACH 2.000 2.000 2.000 2.000 2.000 2.000 2.000 2.000 2.000 2.000 2.000 2.000	BETA -6.083 -5.066 -4.062 -3.063 -2.008 -1.032020 .974 2.025 4.052 5.075 6.093 7.088 8.136	CN .33651 .33435 .33378 .33372 .33355 .33372 .33347 .33231 .33236 .33310 .33375 .33285 .33446 .33578	CA .11226 .11354 .11334 .11278 .11205 .11205 .11222 .11208 .11226 .11226 .11277 .11194 .11096 .10971	CLM .00724 .00866 .00926 .00906 .00872 .00871 .00853 .00844 .00881 .00863 .00566	CBL .00801 .00703 .00547 .00380 .00243 .00091 00056 00179 00324 00699 001017 01210	CYN .00030 00045 00051 00014 00002 .00015 .00047 .00080 .00086 .00037 00006 .00081	CY .09919 .08440 .06910 .03240 .03666 .01827 .00135 01472 03161 06491 08196 09459 11223 113212	CL .30974 .30738 .30686 .30589 .30680 .30702 .30702 .30563 .30565 .30565 .30692 .30692 .30795	CD .17293 .17378 .17348 .17295 .17245 .17224 .17234 .17199 .17217 .17266 .17295 .17195 .17130	L/0 1.79112 1.76875 1.76889 1.77439 1.77909 1.77989 1.77705 1.77526 1.77457 1.77457 1.78070 1.79771	ELEVON -10.01642 -10.01951 -10.01951 -10.01951 -10.01951 -10.01951 -10.01951 -10.01951 -10.01951 -10.01951 -10.01951 -10.01951 -10.01951 -10.01951

(SJ4017) (28 OCT 75)

PARAMETRIC DATA

LREF	:	2690.0000 S 474.8000 I 936.6800 I .0150	NCHES	YMRP	-	.0000	IN.	YO	SPDBRK	-	10.000 55.000 -10.000	GRITNO	*	.000 50.000 .000
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	RUN NO.	10/0 F	N/L = 2.00					
MACH	BETA	ALPHA	Q(PSF)	AILRON	ELEV-L	ELEV-R	CAC	CAB
1.500	-6.077	10.16440	477.38706	20760	-10.15318	-9.73797	.01656	.03143
1.500	-5.079	10.16716	477.55867	20442	-10.14681	-9.73797	.01643	.03069
1.500	-4.055	10.16624	477.38706	20442	-10.14681	-9.73797	.01634	.03062
1.500	-3.019	10.17013	477,47286	20442	-10.14581	-9.73797	.01625	.03053
1.500	-2.001	10.17385	477.47286	19505	-10.14045	-9.75035	.01599	.03041
1.500	-1.026	10.17770	477.47286	19814	-10.14045	-9.74416	.01589	.03016
1.500	014	10.18167	477.42996	18868	-10.12772	-9.75035	.01582	.03006
1.500	1.000	10.18469	477.47286	18550	-10.12135	-9.75035	. 11592	.03031
1.500	2.011	10.18598	477.34415	17922	-10.11499	-9.75654	.01601	.03046
1.500	3.023	10.18695	477.30125	17931	-10.12135	-9.76273	.01611	.03071
1.500	4.057	10.19011	477.30125	17613	-10.11499	-9.76273	.01628	.03099
1.500	5.079	10.19142	477.34415	17294	-10.10862	-9.76273	.01642	.03124
1.500	6.080	10.15372	477.38706	17294	-10.10862	-9.76273	.01660	.03159
1.500	7.092	10.19499	477.42996	17613	-10.11499	-9.76273	.01676	.03212
1.500	8.121	10.19144	477.30125	17604	-10.10862	-9.75654	.01696	.03243
			.,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,		10.10000	3.7303.	.01030	.001.10
	RUN NO.	43/ 0 R	N/L = 2.00					
MACH	BETA	ALPHA	Q(PSF)	AILRON	ELEV-L	ELEV-R	CAC	CAB
2.000	-6.083	10.72595	475.15678	11130	-10.12772	-9.90512	.01197	.02249
2.000	-5.066	10.72516	475.04942	11130	-10.12772	-9.90512	.01190	102501
2.000	-4.062	10.72539	475.04942	10820	-10.12772	-9.91131	.01159	.02157
2.000	-3.063	10.73149	475.08521	10820	-10.12772	-9.91131	.01138	.02129
2.000	-2.008	10.73178	475.01364	10820	-10.12772	-9.91131	.01112	.02098
2.000	-1.032	10.73242	475.04942	10820	-10.12772	-9.91131	.01094	.02070
2.000	020	10.72884	475.12099	11448	-10.13408	-9.90512	.01108	.02095
2.000	.974	10.73019	475.04942	11139	-10.13408	-9.91131	.01103	.02079
2.000	2.025	10.72907	475.29992	10820	-10.12772	-9.91131	.01121	.02117
2.000	4.052	10.73201	475.22835	10820	-10.12772	-9.91131	.01159	.02193
2.000	5.075	10.73191	475.22835	10820	-10.12772	-9.91131	.01192	.02255
2.000	6.093	10.72930	475.26413	11139	-10.13408	-9.91131	10510.	.02281
2.000	7.003	10.73129	475.37149	11130	-10.12772	-9.90512	.01208	.02281
2.000	8.130	10.72418	475.26413	11439	-10.12772	-9.89893	.01212	.02240
	0.130	.0			. U . I E / / E	3.05053	.01616	.000

DAT		

PAGE 35

BASELINE (LA	RC UPWT 1118) LA-63/	A
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(RJ4018) (28 OCT 75)

PARAMETRIC DATA

SREF -						ALPHA =	10.000	BDFLAP =	.000
LREF =	474.8000 INCHES	YMRP	0000	IN.	. YO	SPDBRK =	55.000	GRITNO =	50.000
BREF =	936.6800 INCHES	ZMRP	375.0000	IN.	. zo	ELEVON =		AILRON =	.000

		RUN NO.	59/ 0	RN/L =	2.00					,	
MACH	BETA	CN	CA	CLM	CBL	CYN	CY	CL	CD	L/D	ELEVON
2.000	-6.085	. 34761	.11167	00298	.00864	.00047	.10056	.32082	. 17431	1.84049	-5.58302
2.000	-5.047	.34807	.11284	00165	.00756	00043	. 08439	.3210+	. 17555	1.82878	-5.58302
2.000	-# O##	.34709	.11267	00131	.00601	00016	. 06862	. 32010	. 17521	1.82690	-5.58311
2.000	-3.063	.34893	.11195	00105	.00406	.00007	.05088	.32203	. 17488	1.84136	-5.58311
2.000	-2.026	. 34767	.11150	00140	. 10245	.00012	.03396	.32085	.17424	1.84143	-5.58311
2.000	-1.033	.34656	.11132	00131	.00108	.00027	.0'912	.31989	.17389	1.83962	-5.57692
2.000	002	.34785	.11112	00123	00038	.00050	.00163	.32108	.17397	1.84562	-5.57391
2.000	.974	.34719	.11092	00126	00171	.00066	01531	.32047	. 17362	1.84579	-5.58620
2.000	1.987	.34659	.11120	00150	00316	.00077	03163	. 31982	.17378	1.84033	-5.58930
2.000	2.999	. 34776	.11125	00125	00472	.00099	04852	. 32096	.17406	1.84393	-5.58611
2.000	4.052	.34682	.11176	00145	00648	.00121	06572	.31993	. 17439	1.83458	-5.58620
2.000	5.074	.34667	.11186	00207	00801	.00132	08201	.31978	. 17446	1.83297	-5.58302
2.000	6.076	.34748	.11121	00350	00913	.000+2	09722	. 32069	.17397	1.84335	-5.57992
2.000	7.087	.34599	.11045	00455	01066	.00046	11262	31940	.17288	1.84756	-5.56754
2.000	8.136	.34976	.10836	00772	01253	.00112	13328	.32350	.17153	1.88593	-5.55817

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BASELINE (LARC UPWT 1118) LA-63A

(SJ4018) (28 OCT 75)

REFERENCE DATA

LREF BREF	:	2690.0000 SQ.FT. 474.8000 INCHES 936.6800 INCHES	YMRP	.0000	IN.	YO	ALPHA SPOBRK ELEVON	55.000	BDFLAP = GRITNO = AILRON =	.000 50.000 .000
SCALE	=	.0150						0.000		

	RUN NO.	59/ 0 F	RN/L = 2.00					
MACH	BETA	ALPI A	Q(PSF)	AILRON	ELEV-L	ELEV-R	CAC	CAB
2.000	-6.085	10.70693	475.26413	.24862	-5.33440	-5.83164	.01231	.02265
2.000	-5.047	10.70885	475.15678	.24862	-5.33440	-5.83164	.01227	. 02252
2.000	-4.044	10.71030	475.19256	.24234	-5.34076	-5.82545	.01191	.02202
2.000	-3.063	10.71694	475.19256	.24234	-5.34076	-5.82545	.01150	.02139
2.000	-2.026	10.72281	475.51463	.24234	-5.34076	-5.82545	.01133	.02115
2.000	-1.033	10.72564	475.44306	.23615	-5.34076	-5.81307	.01116	.02033
2.000	002	10.73436	475.29992	.22678	-5.34713	-5.80069	.01114	.02092
2.000	.974	10.73052	475.22835	.24544	-5.34076	-5.83164	.01105	.02064
2.000	1.987	10.73095	475.15678	.24853	-5.34076	-5.83743	.01126	.02104
2.000	2.999	10.73191	475.19256	.25172	-5.33440	-5.83783	.01143	.02149
2.000	4.052	10.73332	475.22835	.24544	-5.34076	-5.83164	.01173	.02186
2.000	5.074	10.73141	475.19256	.24862	-5.33440	-5.83164	01224	.02290
2.000	6.076	10.73293	475.15678	.24553	-5.33440	-5.82545	.01238	.02305
2.000	7.097	10.72033	475.19256	.23314	-5.33440	-5.80069	.01248	.02309
2.000	8.136	10.72122	475.22835	.23014	-5.32803	-5.78830	01247	02299





LAGSA TABULATED SOURCE DATA

BASELINE (LARC UPHT 1118) LA-63A

(RJ4019) (28 OCT 75)

PAGE 37

REFERENCE DATA

PARAMETRIC DATA SREF = 2690,0000 SQ.FT. XMRP = 1076,7000 IN XO ALPHA = 10 000 BOELAP = 000

L	REF =	474.8000 1 936.6800 1 .0150	NCHES YMRP	.0	7000 IN. XC 0000 IN. YC 0000 IN. ZC)			ALPHA = SPDBRK = ELEVON =	10.000 55.000 .000	BDFLAP = GRITNO = AILRON =	.000 50.000 .000
			RUN NO.	11/ 0	RN/L =	2.00						
	MACH 1.500 1.500 1.500 1.500 1.500 1.500 1.500 1.500 1.500 1.500 1.500 1.500	BETA -6.078 -5.059 -4.056 -3.001 -1.026 014 .999 2.013 4.056 5.117 6.083 8.102	CN .46297 .46540 .46586 .46675 .46675 .46717 .46420 .46616 .46760 .46468 .46201 .45869 .46023 .45360 .46192	CA .12486 .12434 .12477 .12483 .12443 .12453 .12455 .12496 .12496 .12495 .12495 .12375 .12282 .12211	CLM 02598 02641 02631 02587 02515 02457 02427 02490 02467 02468 02575 02557	CBL .00966 .00801 .00607 .00373 .00195 .00099 00016 00213 00311 00735 00735 00924 01107 01324 01518	CYN007370061701562005410049000452004080037600288002880028800067	CY .10804 .08695 .07010 .05426 .03622 .01959 .00289 01358 03070 04646 06338 08285 10206 12131	CL .43364 .43612 .43649 .43691 .43741 .43782 .43488 .43678 .43813 .43524 .43270 .42956 .43124 .43314	CD .20466 .20458 .20511 .20527 .20497 .20500 .20457 .20502 .20502 .20523 .20524 .20523 .20524 .20525	L/D 2.11885 2.13176 2.12812 2.12819 2.13576 2.12583 2.13039 2.13039 2.13044 2.12104 2.11873 2.11665 2.13158 2.13765 2.13765	ELEVON 92538 03157 03767 04386 04386 04076 04076 04076 04076 04386 03758 03449 02511
			RUN NO.	44/ 0	RN/L =	2.00						
	MACH 2.000 2.000 2.000 2.000 2.000 2.000 2.000 2.000 2.000 2.000 2.000 2.000	BETA -6.084 -5.066 -4.044 -3.026 -2.007 -1.032 020 .974 2.006 3.018 4.052 5.075 6.094 7.088 8.135	CN .36866 .36837 .36796 .36877 .36692 .36580 .36679 .36667 .36644 .36579 .36532 .36532 .36620 .36695 .36723	CA .11367 .11473 .11466 .11389 .11352 .11317 .11305 .11298 .11300 .11334 .11332 .11260 .1145 .10967	CL10173801614015440156801549015560157301573016750167501786017860189702217	CBL .00828 .00714 .00559 .00399 .00212 .00067 00078 00222 00377 00526 00699 00869 00969 01127 01332	CYN -00063 -00023 -00008 -00013 -00020 -00047 -00057 -00062 -00084 -00096 -00107 -00015 -00013 -00096	CY .09870 .08395 .06880 .05309 .03466 .01770 .00080 01493 03122 04786 06536 08224 09567 11250 13176	CL .34126 .34058 .34018 .34111 .33936 .33932 .33932 .33932 .33835 .33783 .33871 .33859 .34007 .34306	CD .18032 .18130 .18115 .18056 .17987 .17943 .17935 .17924 .17913 .17938 .17950 .17892 .17784 .17659	L/D 1.89253 1.87857 1.87787 1.88920 1.88665 1.89553 1.89079 1.89137 1.89133 1.88889 1.88335 1.88701 1.89802 1.91222 1.94273	ELEVON .01238 .01238 .00929 .00937 .00929 .00619 .00619 .00301 .00937 .00619 .00937 .01256 .01255

10.72971 474.83471 10.72575 474.72735

10.72477 474.79892

10.72457 474.72735

8.135 10.72413 474.72735

(SJ4019) (28 OCT 75)

REFERENCE DATA

2.000

2.000

2.000

2.000

2.000

4.052

5.075

6.094

7.088

PARAMETRIC DATA

SREF LREF BREF SCALE	:	2690.0000 474.8000 935.6800 .0150	INCHES	YMRP	•	.0	000 IN.	Y		ALPHA SPDBRK ELEVON	10.000 55.000 .000	BDFLAP GRITNO AILRON	.000 50.000 .000
				RUN NO.	1	1/ 0	RN/L	•	2.00				

	HUN NU.	11/0 6	W/L = 2.00					
MACH 1.500 1.500 1.500 1.500 1.500 1.500 1.500 1.500 1.500 1.500 1.500	BETA -6.078 -5.059 -4.056 -3.019 -2.001 -1.026014 .2.012 3.023 4.056 5.117 6.080 7.093	ALPHA 10.17150 10.17334 10.17490 10.17815 10.18537 10.18537 10.185887 10.19197 10.19059 10.19059 10.19063 10.18983 10.19069	Q(PSF) 477.47286 477.51577 477.64448 477.60157 477.60157 477.60157 477.55867 477.51577 477.42996 477.30125 477.51577	A!LRON019180129900052 .00567 .00567 .00567 .00257 .00257 .00257 .00575 .00575	ELEV-L 04456 04456 03819 03819 03819 03819 03819 03819 03183 03183 03183	ELEV-R00619018570371404953049530433304333043330433304333	CAC .01695 .01633 .01619 .01609 .01584 .01581 .01591 .01589 .01627 .01627	CAB .03084 .03069 .03057 .03060 .03038 .03007 .03020 .02997 .03016 .03031 .03021
1.500	8.102	10.19402	477.47286	00035	02546 03183	02476 01238	.01693	.03206
	RUN NO.	44/ 0 F	N/L = 2.00					
MACH 2.000 2.000 2.000 2.000 2.000 2.000 2.000	BETA -6.084 -5.066 -4.044 -3.026 -2.007 -1.032 020	ALPHA 10.72348 10.72759 10.72852 10.73005 10.73366 10.72498 10.72684	0(PSF) 474.58421 474.69157 474.58421 474.58421 474.65578 474.69157 474.83471 474.76314	AILRON 01238 01238 00929 00301 00929 00619 00619 00937	ELEV-L .00000 .00000 .00000 .00637 .00000 .00000	ELEV-R .02476 .02476 .01857 .01238 .01857 .01238 .01238	CAC .01266 .01274 .01242 .01210 .01191 .01177	CAB .02272 .02326 .02288 .02254 .02255 .02210 .02110
2.000	3.018	10.73156	474.87049 474.90628	00301	.00637	.01238	.01201	.02229

-.00301

.00017

.00017

.00017

-.00292

.00637

.01273 .01273 .01273

.01273

.01238

.01238

.01238

.01857

.01225

.01256

.01263

.01265

.02308

.02351

.02339

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BASELINE (LARC UPWT 1118) LA-63A

(RJ4020) (28 OCT 75)

REFERENCE DATA

PARAMETRIC DATA

SREF = LREF = BREF = SCALE =	2690.0000 474.8000 936.6800 .0150	INCHES YMRP	0	7000 IN. X0 0000 IN. Y0 0000 IN. Z0	1			ALPHA = SPDBRK = ELEVON =	10.000 55.000 10.000	POFLAP = GRITNO = AILRON =	.000 50.000 .000
		RUN NO.	12/ 0	RN/L =	2.00						
MACH 1.500 1.500 1.500 1.500 1.500 1.500 1.500 1.500 1.500 1.500 1.500 1.500 1.500	-5.079 -4.056 -3.037 -2.001 -1.026 015 1.018 2.010 3.023 4.055 5.116 6.079 7.091	.52585 .52618 .53080 .53154 .53257 .53156 .53149 .52803 .52981 .53076 .52676	CA .13655 .13591 .13649 .13616 .13628 .13650 .13668 .13643 .13585 .13581 .13585 .13581 .13401 .13361	CLM075950759007634077160776007698076260763207615075770757407631	CBL .01001 .00782 .00546 .00378 .00216 .00088 00042 00202 00371 00548 00723 00959 01153 01397	CYN006550058200532004980049100412004010038100259001810010200033	CY .10623 .08793 .06995 .05236 .03522 .01898 .00360 01264 02716 04547 06206 08051 09884 11697 13515	CL .49348 .49366 .49388 .49846 .49915 .50012 .49908 .49966 .49569 .495749 .4967 .49572 .49102	CD .22709 .22647 .22713 .22767 .22767 .22835 .22837 .22812 .22728 .22728 .22728 .22714 .22573 .22511 .22365	L/D 2.17305 2.17983 2.174.2 2.18943 2.18983 2.19011 2.18539 2.18770 2.18090 2.18884 2.19461 2.19142 2.20211 2.19353 2.21294	ELEVON 10.02448 10.02138 10.02448 10.02766 10.01201 10.01210 10.00582 10.00900 10.00591 10.00909 10.01537 10.01219 10.00909 10.01537
1.30	. 0.101	RUN NO.	45/ 0	RN/L =	2.00	00033	13515	.43276	.22207	2.21294	10.0155
MACH 2.000 2.000 2.000 2.000 2.000 2.000 2.000 2.000 2.000 2.000 2.000 2.000 2.000 2.000	-5.086 -4.044 -3.063 -2.008 -1.032 020 .993 2.025 3.018 4.051 5.074	CN .41062 .40950 .40657 .40819	CA .12251 .12334 .12332 .12288 .12277 .12264 .12271 .12274 .12291 .12315 .12301 .12363 .12187 .12063 .11884	CLM049940476904764047630476304784047840481404883050250513405445	CBL .00891 .00755 .00582 .00398 .00234 .00086 00210 00210 00369 00540 00711 00890 01015 01171 01379	CYN .00079 .00004 .00020 .00031 .00042 .00053 .00058 .00068 .00085 .00100 .00123 .00144 .00059 .00014	CY .09828 .08472 .06806 .05117 .03451 .0:763 .00102 -01473 03219 04823 06538 08140 09602 11218 13056	CL .38066 .37940 .37847 .37818 .37756 .37699 .37591 .37593 .37599 .37713 .37688 .3796 .37881	Cc .19676 .19738 .19732 .19673 .19613 .19631 .19628 .19610 .19671 .19656 .19663 .19661 .19560 .19451 .19310	L/D 1.93459 1.92219 1.91907 1.92236 1.91718 1.92332 1.92064 1.91642 1.92128 1.91283 1.91794 1.92081 1.93228 1.94757 1.97329	ELEVAN 9.99610 9.99937 9.99309 9.99318 9.98991 9.99318 9.98690 9.99008 9.9954 9.9954 9.9954 10.00591 10.00591

OF POOR QUALITY

(SJ4020) (28 OCT 75)

PARAMETRIC DATA

LREF	=	2690.0000 474.8000 936.6800	INCHES	YMRP		.0000	IN.	YO	ALPHA SPDBRK ELEVON	3	55.000	BDFLAP = GRITNO =	.000 50.000 .000
SCALE		.0150		ZMAP	•	375.0000	114.	20	ELEVON	-	10.000	AILRON .	.000

	RUN NO.	12/ 0 F	N/L = 2.00					
MACH	BETA	ALPHA	Q(PSF)	AILRON	ELEV-L	ELEV-R	CAC	CAB
1.500	-6.059	0.15265	477.68738	.01412	10.03860	10.01036	.01706	.03077
1.500	-5.079	10.15156	477.47286	.01721	10.03860	10.00417	.01658	.03062
1.500	-4.056	10.15535	477.47286	.01412	10.03860	10.01036	.01632	.02984
1.500	-3.037	10.16109	477.55867	.01730	10.04496	10.01036	.01603	.02976
1.500	-2.001	10.16341	477.60157	.02022	10.03223	9.99179	.01503	.03001
1.500	-1.026	10.16586	477.60157	.02650	10.03860	9.98560	.01514	.03026
1.500	015	10.16841	477.51577	.02641	10.03223	9.97941	.01624	.03041
1.500	1.018	10.16904	477.51577	.02960	10.03860	9.97941	.01613	.03041
1.500	2.010	10.17126	477.51577	.02960	10.03860	9.97941	.01619	.03075
1.500	3.023	10.17200	477.47286	.03269	10.03860	9.97322	.01627	.03091
1.500	4.055	10.17467	477.47286	.03587	10.04496	9.97322	.01639	.03112
1.500	5.116	10.17268	477.47286	.03596	10.05133	9.97941	.01646	.03166
1.500	6.079	10.17394	477.51577	.03278	10.04496	9.97941	.01662	.03222
1.500	7.091	10.17281	477.51577	.03587	10.04496	9.97322	.01707	.03278
1.500	8.121	10.17401	477.68738	.03596	10.05133	9.97941	.01692	.03320
	RUN NO.	45/ 0 F	N/L = 2.00					
MACH	BETA	ALPHA	Q(PSF)	AILRON	ELEV-L	ELEV-R	CAC	CAB
2.000	-6.084	10.72232	474.76314	.00431	10.00040	9.99179	.01274	.02355
2.000	-5.086	10.72384	474.79892	.00112	9.99404	9.99179	.01262	.02348
2.000	-4.044	10.72809	474.87049	.00431	10.00040	9.99179	.01228	.02292
2.000	-3.063	10.72974	474.83471	.01377	10.01314	9.98560	.01193	.02232
2.000	-2.008	10.71854	474.79892	.00740	10.00040	9.98560	.01172	.02194
2.000	-1.032	10.72085	474.79892	.01050	10.00040	9.97941	.01171	.02185
2.000	020	10.72298	474.83471	.01368	10.00677	9.97941	.01183	.02204
2.000	.993	10.72463	474.87049	.01996	10.01314	9.97322	.01183	.02217
2.000	2.025	10.72912	474.69157	.01987	10.00677	9.96703	.01198	.02229
2.000	3.018	10.72562	474.87049	.02305	10.01314	9.96703	.01206	.02210
2.000	4.051	10.72550	475.01364	.02632	10.02587	9.97322	.01229	.02261
2.000	5.074	10.72717	474.90628	.03260	10.03223	9.96703	.01253	.02336
2.000	6.093	10.72255	474.97049	.03269	10.03860	9.97322	.01276	.02367
2.000	7.087	10.72207	474.90628	.03269	10.03860	9.97322	.01284	.02393
2.000	8.097	10.72175	474.83471	.03269	10.03860	9.97322	.01283	.02377

LAGSA TABULATED SOURCE DATA

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BASELINE (LARC UPHT 1118) LA-63A

(RJ4021) (28 OCT 75)

REFERENCE DATA

PARAMETRIC DATA

1	BREF = BREF = BCALE =	2690.0000 SQ 974.8000 IN 936.6800 IN .0150	CHES YMRP		7000 IN. X0 0000 IN. Y0 0000 IN. Z0)			ALPHA = SPOBRK = ELEVON =	14.000 55.000 -10.000	BDFLAP = GR!TNO = AILRON =	.000 50.000 .000
			RUN NO.	55/ 0	RN/L =	2.00						
	MACH 1.500 1.500 1.500 1.500 1.500 1.500 1.500 1.500 1.500 1.500 1.500 1.500	9ETA -6.081 -5.063 -4.059 -3.023 -1.028 .005 1.038 2.012 3.025 4.079 5.120 6.084 7.117	CN .60602 .60676 .60854 .60784 .61172 .60670 .60981 .60781 .60565 .60521 .60845 .60741 .60643 .60539 .60340	CA .11743 .11789 .11782 .11796 .11735 .11711 .11695 .11710 .11735 .11691 .11653 .11624 .11533 .11481	CLM 03825 00824 00871 00896 00998 00937 00837 00835 00849 00836 00848 00848 00848	CBL .00935 .00802 .00509 .00444 .00219 .00059 -00116 00260 00422 00585 00759 00939	CYN00308003870043800495005120051200477004210038800388004590046300463	CY .10337 .08789 .07184 .05600 .03968 .02333 .00445 01314 03069 04720 064720 064720 064720 064720	CL .55836 .55895 .56069 .55996 .56386 .55907 .56210 .56013 .55801 .55753 .56077 .55984 .55897	CD .26323 .26388 .26426 .26424 .26465 .26378 .26378 .26343 .26302 .26308 .26347 .26235 .26235	L/D 2.12120 2.11818 2.12169 2.11913 2.13062 2.12469 2.12628 2.12628 2.12628 2.12628 2.12628 2.12628 2.12628 2.12628 2.12628 2.12628	ELEVON -9.90411 -9.90102 -9.91348 -9.91030 -9.91349 -9.91039 -9.91340 -9.90721 -9.90721 -9.90402 -9.90401
		0.120	RUN NO.	48/ 0	RN/L =	01370 2.00	00841	12674	.55836	.26025	2.13777	-9.89775
JVG . 2. 2	MACH 2.000 2.000 2.000 2.000 2.000 2.000 2.000 2.000 2.000 2.000 2.000 2.000	BETA -6.087 -5.069 -4.084 -3.026 -2.027 -1.033 -020 .974 2.007 3.019 4.053 5.083 6.077 7.072 8.102	CN . '9588 . 49528 . 49454 . 4941 . 49301 . 49417 . 49339 . 49317 . 49195 . 4924 . 49140 . 49257 . 49260 . 49363	CA .10031 .10176 .10240 .10244 .10227 .10213 .10195 .10210 .10225 .10277 .10245 .10146 .09997 .09921 .09871	CLM .00137 .00260 .00326 .00316 .00320 .00338 .00335 .00299 .00309 .00301 .00101 00171	CEL .00783 .00642 .00537 .00392 .00250 .000930021400357005110067000802009190112001364	CYN .00659 .00597 .00443 .00307 .00194 .00120 .00041 0033 00113 00205 00340 00447 00566 00502 00396	CY .08996 .07405 .06121 .04667 .03209 .01679 .00157 -01371 02836 04210 05724 07156 08579 10504 12757	CL. .45367 .45186 .45173 .45267 .45046 .45161 .45081 .45058 .44908 .44907 .45058 .44907 .45058	CD .22391 .22517 .22556 .22563 .22500 .22504 .22523 .22500 .22504 .22523 .22500 .22383 .2270 .22196 .22173	L/D 2.02610 2.01058 2.00318 2.00268 2.00527 2.0027 2.00357 2.00227 1.99480 1.99835 2.00633 2.02329 2.03103 2.03825	ELEVON -9.82302 -9.82921 -9.82612 -9.82612 -9.83639 -9.83239 -9.83239 -9.83239 -9.83239 -9.83239 -9.83239 -9.83239 -9.83239

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(SJ4021) (28 OCT 75)

PARAMETRIC DATA

SREF	2690.0000 SQ.FT.	XMRP	1076.7000	IN.	XO	AL PHA	*	14.000	BDFLAP =	.000
LREF	474.8000 INCHES	YMRP	.0000	IN.	YO	SPORRK	12		GRITNO =	50.000
BREF	936.6800 INCHES	ZMRP	375.0000	IN.	ZO				AILRON .	.000
SCALE	0150					2007011				

	RUN NO.	25/ 0 E	RN/L = 2.00					
MACH	BETA	ALPHA	Q(PSF)	AILRON	ELEV-L	ELEV-R	CAC	CAB
1.500	-6.081	14 27392	476.18576	15995	-10.06406	-9.74416	.01692	.03060
1.500	-5.063	14.27707	476 01414	16304	-10.06406	-9.73797	.01694	.03090
1.500	-4.059	14.27829	476.01414	15694	-10.07043	-9.75654	.01703	.03171
1.500	-3.020	14.27937	476.09995	15694	-10.07043	-9.75654	.01702	.03178
1.500	-2.003	14.28310	475.01414	15376	-10.06406	-9.75654	.01687	.03181
1.500	-1.028	14.27894	476.05705	15694	-10.07043	-9.75654	.01674	.03:81
1.500	.005	11.28295	476.31447	16004	-10.07043	-9.75035	.01671	.03186
1.500	1.038	14.28319	476.35737	15066	-10.06406	-9.76273	.01698	.03239
1.500	2.012	14.28579	476.61479	15058	-10.05770	-9.75654	.01706	.03241
1.500	3.025	14.28696	476.52899	15685	-10.06406	-9.75035	.01709	.03212
1.500	4.079	14.28923	476.61479	15995	-10.06406	-9.74416	.01711	.03200
1.500	5.120	14.29143	476.44318	15367	-10.05770	-9.75035	.01705	.03199
1.500	6.084	14.29253	476.52899	15367	-10.05770	-9.75035	.01712	.03206
1.500	7.117	14.29560	476.44318	15995	-10.06406	-9.74416	.01710	.03180
1 500	8.128	14.29650	476.40027	15358	-10.05133	-9.74416	.01717	.03190
	RUN NO.	48/ 0 R	N/L = 2.00					
MACH	BETA	ALPHA	Q(PSF)	AILRON	ELEV-L	ELEV-R	CAC	CAB
2.000	-6.087	14.83293	475.01364	19648	-10.01950	-9.62654	.01197	.02305
2.000	-5.069	14.83396	474.90628	19029	-10.01950	-9.63892	.01229	.02399
2.000	-4.084	14.83017	475.15678	19339	-10.01950	-9.63273	.01234	.02425
5.000	-3.026	14.82808	474.97785	19339	-10.01950	-9.63273	.01232	.02415
2.000	-2.027	14.82773	475.08521	19339	-10.01950	-9.63273	.01220	.02399
2.000	-1.033	14.82803	475.08521	19347	-10.06587	-9.63892	.01204	.02355
2.000	020	14.83123	475.04542	19347	-10.02587	-9.63892	.01197	.02337
2.000	.974	14.83246	475.12099	19038	-10.02587	-9.64511	.01190	.02321
5.000	2.007	14.82567	475.08521	19347	-10.02587	-9.63892	.01190	.02324
2.000	3.019	14.92565	475.26413	19657	-10.02587	-9.63273	.01201	.02293
2.000	□.053	14.82642	475.19256	19966	-10.02587	-9.62654	.01224	.02362
2.000	5.095	14.82695	475.22835	19548	-10.01950	-9.62654	.01213	.02397
2.000	6.077	14.82840	475.33570	20267	-10.01950	-9.61416	.01198	02337
2.000	7.072	14.82714	475.29992	20895	-10.02587	-9.60797	.01206	.02322
2.000	8.102	14.82487	475.33570	21205	-10.02587	-9.60178	.01212	.02284



LASSA TABULATED SOURCE DATA

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BASELINE (LARC UPWT 1118) LA-63A

(RJ4022) (28 OCT 75 -)

REFERENCE DATA

PARAMETRIC DATA

SREF LREF BREF SCALE	936.6800 IN	NCHES YMRP	(7000 IN. X0 0000 IN. Y0 0000 IN. Z0)			ALPHA = SPDBRK = ELEVON =	14.000 55.000 .000	BOFLAP = GRITNO = AILRON =	.000 50.000 .000
		RUN NO.	23/ 0	RN/L =	2.00						
MACH 1.50 1.50 1.50 1.50 1.50 1.50 1.50 1.50	-6.063 -5.063 -4.053 -6.078 -2.003 -1.027 -015 -00 -999 -2.011 -3.025 -4.078 -5.083 -7.097	CN .65823 .65853 .66041 .66387 .66229 .66486 .66611 .66099 .65879 .65803 .65583 .65764 .65414	CA .11755 .11764 .11764 .11747 .11747 .11747 .11746 .11746 .11715 .11689 .11688 .11521	CLM 04659 04679 04639 04748 04943 04964 04789 04736 04554 04562 04623 04649 04662	CBL .00966 .00844 .00643 .00480 .00281 .00066 00078 00193 00373 00549 00772 00916 01056 01185	CYN00171002560033400369004100043100426004280042800483005150058300740	CY .10074 .08557 .05927 .05324 .03861 .02076 .00397 -01188 -02755 -04526 -06236 -07997 -09466 -10973	CL .60893 .60922 .61093 .61442 .61284 .61532 .61652 .61166 .60944 .60883 .60657 .60532 .60589	CD .27619 .27613 .27702 .27742 .27729 .27788 .27821 .27656 .27638 .27585 .27504 .27512 .27379 .27305	2.20473 2.20586 2.20587 2.21480 2.21688 2.21605 2.21168 2.20507 2.20698 2.20507 2.20698 2.20507 2.20698	ELEYON021060397104272045820396304272045910365303025030250302503025
1.50	0 8.146	.65380 RUN NO.	.11464	04673 RN/L =	01341 2.00	00902	12480	.80533	.27234	2.22267	.00388
MACH 2.00 2.00 2.00 2.00 2.00 2.00 2.00 2.0	-6.087 -5.069 -4.064 -0.046 -2.009 -1.015 -0.021 0.025 0.026 0.034 0.034 0.034 0.034 0.034 0.034 0.034 0.034 0.034 0.034 0.034 0.034 0.034 0.034 0.034 0.034 0.034	CN .52946 .52936 .52799 .52775 .52784 .52729 .52763 .52779 .52808 .52823 .52675 .52957	CA .10208 .10371 .10462 .10457 .10414 .10349 .10268 .10255 .10288 .10246 .10251 .10273 .10109 .10007	CLM 02572 02416 02347 02320 02301 02266 02256 02314 02340 02360 02456 024596 024596 024596	CBL .00834 .00670 .00548 .00405 .00242 .00082 00259 00411 00557 00721 00881 01024	CYN .00682 .00602 .00449 .00334 .00215 .00141 .00072 00018 00205 00335 00439 00502 00502	CY .08919 .07361 .06019 .04737 .03249 .01753 .00256 01324 02878 04275 05729 07041 08608 10622 12693	CL .48571 .48519 .48364 .48342 .48370 .48347 .48347 .48389 .48428 .48428 .48428 .48608 .48608 .48608	CD .23418 .23573 .23625 .23614 .23577 .23514 .23415 .23415 .23427 .23410 .23427 .23410 .23217	L/D 2.07411 2.05824 2.04720 2.05159 2.05734 2.06465 2.06631 2.06798 2.06775 2.06289 2.08378 2.08378 2.09361 2.10600	ELEVON0095500946012560157401803018750189301875012560125601256

OF POOR QUALITY

(SJ4022) (28 OCT 75)

REFERENCE DATA

LREF		2690.0000 474.8000 936.6800 .0150	INCHES	YMRP		.0000	IN.	YO	ALPHA SPOBRK = ELEVON =	55.000	BDFLAP = GRITNO = AILRON =	.000 50.000 .000
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	RUN NO.	23/ 0 F	RN/L = 2.00					
MACH	BETA	ALPHA	Q(PSF)	AILRON	ELEV-L	ELEV-R	CAC	CAB
1.500	-6.063	14.27185	476.61479	.06561	.04456	08667	.01716	.03157
1.500	-5.063	14.28884	475.40027	.07791	.03819	11762	.01580	.03149
1.500	-4.059	14.29146	476.35737	.08728	.04456	13000	.01680	.03196
1.500	-3.078	14.28349	476.27156	.09038	.04456	13620	.01675	.03267
1.500	-2.003	14.28158	476.22866	.08419	.04456	12381	.01671	.03248
1.500	-1.027	14.28417	476.35737	.08728	.04456	13000	.01671	.03189
1.500	015	14.29586	476.22866	.08410	.03819	13000	.01667	.03151
1.500	.999	14.28495	476.52899	.08109	.04456	11762	.01677	.03190
1.500	2.011	14.28454	476.57189	.08118	.05093	11143	.01695	.03231
1.500	3.025	14.28072	476.44318	.08118	.05093	11143	.01701	.03252
1.500	4.078	14.27935	476.31447	.07808	.05093	10524	.01703	.03248
1.500	5.083	14.29303	476.35737	.08118	.05093	11143	.01708	.03233
1.500	6.083	14.27436	476.48608	.07508	.05729	09286	.01719	.03256
1.500	7.097	14.27567	476.52899	.06579	.05729	07429	.01747	.03344
1.500	8.146	14.27806	476.52899	.05341	. 05729	04953	.01750	.03284
	RUN NO.	47/ 0 R	N/L = 2.00					
MACH	BETA	ALPHA	Q(PSF)	AILRON	ELEV-L	ELEV-R	CAC	CAB
2.000	-6.087	14.82736	474.83471	00955	01910	.00000	.01256	.02374
2.000	-5.069	14.82797	474.83471	00327	01273	00619	.01277	.02408
2.000	-4.064	14.82710	474.90628	00017	01273	01238	.01279	.02415
2.000	-3.046	14.82613	474.94207	00336	01910	01238	.01251	.02358
2.000	-2.009	14.82709	475.01364	00026	01910	01857	.01227	.02336
2.000	-1.015	14.82967	474.97785	.00602	01273	02476	.01195	.02311
2.000	021	14.82321	475.01364	00026	01910	01857	.01181	.02355
2.000	. 955	14.82559	474.97785	.00293	01910	02476	.01192	.02374
2.000	2.025	14.82636	475.01364	.00602	01273	02476	.01204	.02421
2.000	3.019	14.82683	474.97785	.00283	01910	02476	.01208	.02484
2.000	4.034	14.82728	475.01364	.00292	01273	01857	.01234	.02550
5.000	5.094	14.82694	475.04942	00017	01273	01238	.01246	.02503
5.000	6.078	14.82897	474.90628	00017	01273	01238	01300	021 711
				0001/		01636	.01249	.02474
5.000	7 072 8.102	14.82515	474.94207	00017	01273	01238	.01255	.02474

DA	TC	17	NICH	76

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	BASELINE	(LARC	UPWT	1118)	LA-63A
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(RJ4023) (28 OCT 75)

REF	ERE	NE	Dal	-
1100	C-110-1	400	- UM	

SREF = LREF = BREF = SCALE =	2690.0000 SQ 474.8000 INC 936.6800 INC .0150	CHES YMRP	0	000 IN. X0)			ALPHA = SPOBRK = ELEVON =	14.000 55.000 10.000	BDFLAP = GRITNO = AILRON =	50.000 .000
		RUN NO.	24/ 0	RN/L -	2.00						
MACH 1.500 1.500 1.500 1.500 1.500 1.500 1.500 1.500 1.500 1.500 1.500	BETA -6.081 -5.045 -4.059 -3.040 -1.984 -1.009 015 .999 2.030 3.024 4.039 5.100 6.083 7.097 8.086	CN -72712 -72759 -72485 -72659 -72944 -72735 -72720 -72649 -72921 -72631 -72307 -72383 -72488 -72567 -72215	CA .12999 .13018 .13009 .12988 .13008 .12965 .12932 .13033 .13047 .13011 .13008 .12958 .12868 .12868 .12862	CLM 09996 10005 09909 09975 10108 10113 10062 10119 10031 09915 09920 09973 10045 10071 10177	CBL .01016 .00871 .00700 .00504 .00245 .00054 00106 00222 00403 00846 00808 00978 01159 01281 01405	CYN001660024800343003890041600429004340039600424005700521006430077800925	CY .09904 .08628 .07042 .05467 .03753 .02220 .00447 -01334 -02890 04571 06255 07682 09275 10822 12191	CL .67262 .67303 .67041 .67214 .67483 .67292 .67285 .67192 .67182 .66870 .66956 .67079 .67155	CD .30526 .30555 .30478 .30502 .30594 .30500 .30465 .30545 .30630 .30514 .30429 .30400 .30340 .30356 .30188	L/D 2.20344 2.20265 2.19963 2.20358 2.20575 2.20630 2.20858 2.19979 2.20208 2.20166 2.19758 2.20251 2.20251 2.20254 2.21400	ELEYON 10.00608 10.01881 9.99980 10.00394 10.01254 10.00299 10.01572 9.99026 9.99034 9.99026 9.99017 9.99017 9.99530 9.99344 9.99533
		RUN NO.	46/ 0	RN/L =	2.00						
MACH 2.000 2.000 2.000 2.000 2.000 2.000 2.000 2.000 2.000 2.000 2.000	BETA -6.087 -5.050 -4.065 -3.027 -2.028 -1.015 021 1.012 2.025 3.000 4.052 5.095 6.077 7.072 8.082	CN .57280 .57322 .57131 .57163 .57067 .57045 .57041 .57082 .57123 .57090 .56948 .57188	CA .11227 .11450 .11590 .11546 .11483 .11434 .11390 .11419 .11484 .11514 .11502 .11468 .11275 .11128	CLM 06078 05893 05799 05794 05736 05736 05733 05853 05868 05944 06056 06374 06659	CBL .00908 .00731 .00572 .00418 .00270 .00100 0075 00259 00413 00558 00733 00892 01038 01283	CYN .00698 .00629 .00459 .00323 .00232 .00169 .00084 .00004 00184 00184 00331 00439 00559 00493	CY .08949 .07450 .06085 .04721 .03252 .01754 .00142 01319 02811 04239 05658 07091 08482 10554 10554 12569	CL .52502 .52486 .52365 .52307 .52265 .52185 .52230 .52222 .52224 .52276 .52250 .52121 .52402 .52518	CD .25506 .25733 .25819 .25786 .25699 .25639 .25611 .25632 .25701 .25746 .25719 .25526 .25403 .25308	L/D 2.05843 2.03964 2.02429 2.02855 2.03220 2.03538 2.03739 2.03199 2.03196 2.05292 2.06739 2.06739	ELEVON 9.97107 9.97744 9.98062 9.97753 9.97761 9.98071 9.98071 9.99344 9.99344 9.99662 9.99344 9.99662 9.99341 10.00617 10.00617

(SJ4023) (28 OCT 75)

REFERENCE DATA

	2690.0000 SQ.FT.			- Total		ALPHA	The second secon	BOFLAP .	.000
*	936.6800 INCHES					SPDBRK ELEVON		GRITNO = AILRON =	50.000

	RUN NO.	24/ 0 R	N/L = 2.00					
MACH 1.500	BETA -6.081	ALPHA 14.27403	Q(PSF) 476.65770	A1LRON .04525	ELEV-L 10.05133	ELEV-R 9.96084	CAC .01732	CAB .03257
1.500	-5.045	14.27419	476.52899	.05798	10.07679	9.96084	.01707	.03209
1.500	-4.059	14.27273	476.52899	.04516	10.04496	9.95465	.01676	.03203
1.500	-3.040	14.27390	476.57189	.06099	10.07043	9.94845	.01655	.03181
1.500	-1.984	14.27611	476.40027	.05789	10.07043	9.95465	.01647	.03152
1.500	-1.009	14.27535	476.40027	.04834	10.05133	9.95465	.01633	.03127
1.500	015	14.27633	476.40027	.06107	10.07679	9.95465	.01630	.03108
1.500	.999	14.27541	476.57189	.03561	10.02587	9.95465	.01651	.03094
1.500	2.030	14.27964	476.57189	.04189	10.03223	9.94845	.01667	.03131
1.500	3.024	14.27130	476.44318	.03561	10.02587	9.95465	.01665	.03162
	4.039	14.26970	476.44318	.02933	10.01950	9.96084	.01679	.03199
1.500	5.100	14.26974	476.48608	.02933	10.01950	9.96084	.01702	.03250
1.500	6.083 7.097	14.27100	476.57189	.04516	10.04496	9.95465	.01712	.03310
1.500		14.27333	476.31447	.03879	10.03223	9.95465	.01758	.03339
1.500	8.088	14.27190	476.31447	.03570	10.03223	9.96094	.01771	.03308
	RUN NO.	46/ 0 R	N/L = 2.00					
MACH	RUN NO.	46/ D R	N/L = 2.00	AILRON	ELEV-L	ELEV-R	CAC	CAB
1000.S				AILRON	ELEV-L 9.98131	ELEV-R 9.96084	CAC .01222	CAB .02368
	BETA	ALPHA	Q(PSF)					
0.000	BETA -6.087	ALPHA 14.82094	Q(PSF) 474.97785	.01024	9.98131	9.96084	.01222	.02368
2.000	BETA -6.087 -5.050	ALPHA 14.82094 14.82159	Q(PSF) 474.97785 475.01364	.01024	9.98131	9.96084 9.96084	.01222	.02368
2.000 2.000 2.000 2.000	BETA -6.087 -5.050 -4.065	ALPHA 14.82094 14.82159 14.82163	Q(PSF) 474.97785 475.01364 474.97785	.01024 .01660 .01978	9.98131 9.99404 10.00040	9.96084 9.96084 9.96084	.01222	.02368
2.000 2.000 2.000 2.000 2.000	BETA -6.087 -5.050 -4.065 -3.027	ALPHA 14.82094 14.82159 14.82163 14.92250	Q(PSF) 474.97785 475.01364 474.97785 474.90628	.01024 .01660 .01978 .02288	9.98131 9.99404 10.00040 10.00040	9.96084 9.96084 9.95465	.01222 .01241 .01250 .01211	.02368 .02362 .02361 .02308
2.000 2.000 2.000 2.000 2.000 2.000	BETA -6.087 -5.050 -4.065 -3.027 -2.028	ALPHA 14.82094 14.82159 14.82163 14.92250 14.82298	Q(PSF) 474.97785 475.01364 474.97785 474.90628 474.83471	.01024 .01660 .01978 .02288 .02916	9.99131 9.99404 10.00040 10.00040 10.00677	9.96084 9.96084 9.95465 9.94845	.01222 .01241 .01250 .01211 .01169	.02368 .02362 .02361 .02306 .02217
2.000 2.000 2.000 2.000 2.000	BETA -6.087 -5.050 -4.065 -3.027 -2.028 -1.015	ALPHA 14.82094 14.82159 14.82150 14.92250 14.82298 14.82394	Q(PSF) 474.97785 475.01364 474.97785 474.90628 474.83471 474.87049	.01024 .01660 .01978 .02288 .02916	9.98131 9.99404 10.00040 10.00040 10.00677 10.00677	9.96084 9.96084 9.96084 9.95465 9.94845 9.95465	.01222 .01241 .01250 .01211 .01169	.02368 .02362 .02361 .02308 .02217 .02154
2.000 2.000 2.000 2.000 2.000 2.000	BETA -6.087 -5.050 -4.065 -3.027 -2.028 -1.015	ALPHA 14.82094 14.82159 14.82163 14.92250 14.82298 14.82394 14.82894	0(PSF) 474.97785 475.01364 474.97785 474.90628 474.83471 474.87049 474.83471	.01024 .01660 .01978 .02288 .02916 .02606	9.98131 9.99404 10.00040 10.00040 10.00677 10.00677	9.96084 9.96084 9.96084 9.95465 9.94845 9.95465 9.95465	.01222 .01241 .01250 .01211 .01169 .01138	.02368 .02362 .02361 .02308 .02217 .02154 .02160
2.000 2.000 2.000 2.000 2.000 2.000 2.000 2.000 2.000	BETA -6.087 -5.050 -4.065 -3.027 -2.028 -1.015 021 1.012 2.025 3.000	ALPHA 14.82094 14.82159 14.82163 14.92250 14.82298 14.82394 14.82894 14.82894	Q(PSF) 474.97785 475.01364 474.97785 474.90628 474.83471 474.87049 474.83471 474.87049	.01024 .01660 .01978 .02288 .02916 .02606 .02606	9.98131 9.99404 10.00040 10.00040 10.00677 10.00677 10.00677	9.96084 9.96084 9.95084 9.95465 9.95465 9.95465 9.95465	.01222 .01241 .01250 .01211 .01169 .01138 .01132	.02368 .02362 .02361 .02308 .02217 .02154 .02160 .02217
2.000 2.000 2.000 2.000 2.000 2.000 2.000 2.000	BETA -6.087 -5.050 -4.065 -3.027 -2.028 -1.015 021 1.012 2.025 3.000 4.052	ALPHA 14.82094 14.82159 14.82163 14.82298 14.82394 14.82894 14.828419 14.82392 14.82392	Q(PSF) 474.97785 475.01364 474.97785 474.90628 474.83471 474.87049 474.83471 474.87049	.01024 .01660 .01978 .0298 .02916 .02606 .02606 .03561 .03879	9.98131 9.99404 10.00040 10.00677 10.00677 10.00677 10.02587 10.03223	9.96084 9.96084 9.96084 9.95465 9.94845 9.95465 9.95465 9.95465	.01222 .01241 .01250 .01211 .01169 .01138 .01132 .01150	.02368 .02362 .02361 .02309 .0217 .02154 .02160 .02217
2.000 2.000 2.000 2.000 2.000 2.000 2.000 2.000 2.000 2.000	BETA -6.087 -5.050 -4.065 -3.027 -2.028 -1.015 021 1.012 2.025 3.000 4.052 5.095	ALPHA 14.82094 14.82159 14.82163 14.82250 14.82298 14.82394 14.82894 14.82419 14.82419	Q(PSF) 474.97785 475.01364 474.97785 474.90628 474.83471 474.87049 474.87049 474.87049 474.87049	.01024 .01660 .01978 .0288 .02916 .02606 .02606 .03561 .03879	9.98131 9.99404 10.00040 10.00677 10.00677 10.00677 10.02587 10.03223 10.03223	9.96084 9.96084 9.96084 9.95465 9.95465 9.95465 9.95465 9.95465	.01222 .01241 .01250 .01211 .01169 .01138 .01132 .01150 .01168	.02368 .02362 .02361 .02306 .02217 .02154 .02160 .02217 .02286 .02380
2.000 2.000 2.000 2.000 2.000 2.000 2.000 2.000 2.000 2.000 2.000	BETA -6.087 -5.050 -4.065 -3.027 -2.028 -1.015 021 1.012 2.025 3.000 4.052 5.095 6.077	ALPHA 14.82094 14.82159 14.82163 14.82250 14.82394 14.82894 14.82894 14.82419 14.82392 14.81735 14.81745	0(PSF) 474.97785 475.01364 474.97785 474.90628 474.83471 474.87049 474.87049 474.87049 474.87049 474.87049 474.87049 474.97785 474.97785	.01024 .01660 .01978 .02288 .02916 .02606 .02606 .03561 .03879 .03879	9.98131 9.99404 10.00040 10.00677 10.00677 10.00677 10.02587 10.03223 10.0323	9.95084 9.95084 9.95085 9.95465 9.95465 9.95465 9.95465 9.95465 9.95465	.01222 .01241 .01250 .01211 .01169 .01138 .01132 .01150 .01168 .01221	.02368 .02362 .02361 .02308 .02217 .02154 .02160 .02217 .02286 .02380 .02472
2.000 2.000 2.000 2.000 2.000 2.000 2.000 2.000 2.000 2.000	BETA -6.087 -5.050 -4.065 -3.027 -2.028 -1.015 021 1.012 2.025 3.000 4.052 5.095	ALPHA 14.82094 14.82159 14.82163 14.82298 14.82394 14.82894 14.8243 14.82419 14.82392 14.82392 14.81735	Q(PSF) 474.97785 475.01364 474.97785 474.90628 474.83471 474.87049 474.87049 474.87049 474.87049 474.87049 474.87049 475.04942 475.04942	.01024 .01660 .01978 .02288 .02916 .02606 .02606 .03561 .03879 .03879 .04198	9.98131 9.99404 10.00040 10.00040 10.00677 10.00677 10.02587 10.03223 10.03223 10.03860 10.04496	9.95084 9.95084 9.95084 9.95465 9.95465 9.95465 9.95465 9.95465 9.95465	.01222 .01241 .01250 .01211 .01169 .01138 .01132 .01150 .01188 .01255	.02368 .02362 .02361 .02308 .02217 .02154 .02160 .02217 .02286 .02380 .02472 .02446

BASELINE (LARC UPWT 1118) LA-63A

FASE 47

(RJ4024) (28 OCT 75)

PARAMETRIC DATA

	REF	ERENCE	DATA
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LF	REF = REF = CALE =	2690.0000 474.8000 936.6800 .0150	INCHES YMRP	0	7000 IN. X0 0000 IN. Y0 0000 IN. Z0)			ALPHA = SPOBRK = ELEVON =	21.000 55.000 -10.000	BDFLAP = GRITNO = AILRON =	.000 50.000 .000
			RUN NO.	33/ 0	RN/L =	5.00						
	MACH	BETA	CN	CA	CLM	CBL	CYN	CY	CL	CD	L/D	ELEVON
	1.500	-6.093		.09595	02898	.00780	.00965	.09162	.80846	.40398	2.00125	-9.86069
	1.500	-5.092	.89306	.09580	02861	.00651	.00804	.07506	.80796	.40360	2.00191	-9.86378
	1.500	-4.066	.89799	.09784	02861	.00552	.00565	.05922	.80718	.40548	1.99071	-9.86405
	1.500	-3.064	.89807	.09960	02872	.00452	.00324	.04579	.80664	.40716	1.98117	-9.86086
	1.500	-2.007	.90225	.10081	02878	.00321	.00071	.03279	.81012	.40978	1.97694	-9.85450
	1.500	-1.029	.90102	.10186	03098	.00154	00218	.01835	.80861	.41031	1.97075	-9.84512
	1.500	014	.90558	.10191	03256	00025	00441	.00362	.E:287	.41195	1.97321	-9.84831
	1.500	.981	.90564	.10288	03094	00230	00667	00830	.81257	.41292	1.96785	-9.85140
	1.500	2.034	.90288	.10324	02882	00415	00902	02239	.80983	.41234	1.96400	-9.84831
	1.500	3.029	.90067	.10231	02912	00553	01110	03562	.80809	.41068	1.96768	-9.85459
	1.500	4.046	.89964	.10128	02818	00717	01394	05049	.80751	.40932	1.97281	-9.84822
	1.500	5.091	.89880	.09981	02849	00857	01656	06509	.80725	.40761	1.98043	-9.84813
	1.500	6.094	.89756	.09772	02848	00963	01838	08106	.80681	.40525	1.99090	-9.84504
	1.500	7.091	.89127	.09386	02846	01119	02019	09829	.80227	. 39941	2.00862	-9.83867
	1.500	8.141	.88889	.08648	02940	01294	02235	11425	.80263	.39164	2.04942	-9.83575
			RUN NO.	57/ 0	RN/L >	2.00						
	MACH	BETA	CN	CA	CLM	CBL	CYN	CY	CL	CD	L/D	ELEVON
	5.000	-6.094	.74077	.08409	01355	.00822	.01506	.08009	.66157	.34371	1.92481	-9.85707
	5.000	-5.055	.74075	.08547	01161	.00585	.01428	.06313	.65104	. 34501	1.91600	-9.86635
	5.000	-4.070	.74107	.08676	01107	.00427	.01259	.04926	.66089	. 34632	1.90835	-3.87874
	5.000	-3.030	.74191	.08772	00961	.00304	.00983	.03642	.66130	.34756	1.90270	-9.88493
	5.000	-2.030	.74196	.08939	00894	.00214	.00643	.02574	.66076	.34912	1.89237	-9.89112
	2.000	-1.016	.74046	.09015	00803	.00098	.00349	.01437	.65910	.34927	1.88709	-9.89112
	2.000	021	.74094	.08993	00776	0028	.00051	.00220	.65960	. 34928	1.88847	-9.88493
	5.000	.993	.74132	.08955	00703	00153	00216	00826	.66009	.34909	1.89090	-9.88493
	5.000	2.007	.74068	.09005	00779	00265	00510	01957	.65930	. 34934	1.88728	-9.88811
	2.000	3.002	.73791	.08992	00843	00378	00826	03000	.65678	.34820	1.88620	-9.88183
	5.000	4.037	.74212	.08750	00929	00503	01123	04295	.66153	. 34755	1.90340	-9.88183
	2.000	5.082	.74114	.08621	01156	00687	01335	05879	.66113	. 34586	1.91153	-9.88183
	2.000	6.083	.74174	.08450	01319	00912	01396	07540	.66231	. 34446	1.92274	-9.87564
	2.000	7.117	.74206	.08317	01464	01151	01437	09506	.66309	. 34334	1.93129	-9.86945
	5.000	8.129	.73998	.08244	01588	01399	01413	11492	.66145	.34185	1.93488	-9.86016

ORIGINAL PAGE IS

(SJ4024) : 28 OCT 75)

REFERENCE DATA

	2690.0000 SQ.FT.				χο	ALPHA .	21.000	BDFLAP -	.000
	474.8000 INCHES						A DESCRIPTION OF THE PROPERTY OF THE PARTY O	GRITNO =	50.000
BREF	936.6800 INCHES	ZMRP	375.0000	IN.	ZO	ELEVON =	-10.000	AILRON =	.000
SCALE	.0150								

RUN NO.	33/ 0	RN/L .	2.00

MACH	BETA	ALPHA	Q(PSF)	AILRON	ELEV-L	ELEV-R	CAC	CAB
1.500	-6.093	20.45625	477.08673	19701	-10.05770	-9.66368	.01810	.03607
1.500	-5.092	20.45421	477.12963	19391	-10.05770	-9.66987	.01873	.03951
1.500	-4.066	20.45406	477.21544	21275	-10.07679	-9.65130	.01903	.03977
1.500	-3.064	20.45363	477.04383	20956	-10.07043	-9.65130	.01937	.04010
1.500	-2.007	20.45623	477.12963	20320	-10.05770	-9.65130	.01982	.04064
1.500	-1.029	20.45443	477.08673	20620	-10.05133	-9.63892	.02019	.04073
1.500	014	20.45477	477.08673	20939	-10.05770	-9.63892	.02047	.04082
1.500	.981	20.45750	477.12963	20629	-10.05770	-9.64511	.02029	.03992
1.500	2.034	20.46071	477.17254	20939	-10.05770	-9.63892	.01983	.03839
1.500	3.029	20.45984	477.21544	20948	-10.06406	-9.64511	.01929	.03699
1.500	4.046	20.45654	477.12963	20311	-10.05133	-9.64511	.01908	.03679
1.500	5.091	20.45470	477.08573	19683	-10.04496	-9.65130	.01862	.03507
1.500	6.034	20.45602	477.17254	+.19993	-10.04496	-9.64511	.01796	.03514
1.500	7.091	20.45501	477.30125	19356	-10.03223	-9.64511	.01666	03243
1.500	8.141	20.45275	477.04383	20921	-10.04496	-9.62654	.01436	.02825
	RUN NO.	57/ 0 R	N/L . 2.00					

MACH	BETA	ALPHA	Q(PSF)	AILRON	ELEV-L	ELEV-R	CAC	CAB
2.000	-6.094	20.97718	475.51463	16243	-10.01950	-9.69464	.01278	.02482
2.000	-5.055	20.97871	475.44306	15315	-10.01950	-9.71321	.01290	.02513
2.000	-4.070	20.97807	475.37149	14077	-10.01950	-9.73797	.01287	.02513
2.000	-3.030	20.98160	475.37149	13457	-10.01950	-9.75035	.01297	.02510
2.000	-2.030	20.97983	475.44306	12838	-10.01950	-9.76273	.01324	.02523
2.000	-1.016	20.98053	475.22835	12838	-10.01950	-9.76273	.01341	.02579
2.000	021	20.98244	475.44306	13457	-10.01950	-9.75035	.01345	.02611
2.000	.993	20.98405	475.51463	13457	-10.01950	-9.75035	.01329	.02601
2.000	2.007	20.98595	475.55041	13776	-10.02587	-9.75035	.01317	.02485
2.000	3.002	20.98371	. /5.55041	13767	-10.01950	-9.74416	16210.	.02350
2.000	4.037	20.98469	475.58620	13767	-10.01950	-9.74416	.01277	.02391
2.000	5.082	20.98140	475.47884	13767	-10.01950	-9.74416	.01278	.02410
2.000	6.083	20.97929	475.47884	14386	-10.01950	-9.73178	.01270	.02400
2.000	7.117	20.97997	475.37149	15005	-10.01950	-9.71940	.01262	.02378
2.000	8.129	20.97447	475.19256	15934	-10.01950	-9.70083	.01260	.02393





LAGSA TABULATED SOURCE DATA

PAGE 49

BASELINE (LARC UPWT 1118) LA-63A

(RJ4025) (28 OCT 75)

REFERENCE	

SREF . BREF . SCALE .	2690.0000 Sc 474.8000 II 936.6800 II .0150	NCHES YMRP	0	0000 IN. XC 0000 IN. YC)			ALPHA = SPDBRK = ELEVON =	21.000 55.000 .000	BDFLAP = GRITNO = AILRON =	.000 50.000 .000
		RUN NO.	32/ 0	RN/L -	2.00						
MACH	BETA	CN	CA	CLM	CBL	CYN	CY	CL	CD	L/D	ELEVON
1.500		.95171	.09677	07207	.00780	.01083	.08753	.85788	.42328	2.02672	.00990
1.500	-5.071	.95225	.10034	07256	.00648	.00843	.07176	.85714	.42681	2.00825	.00362
1.500	-4.046	.95505	.10287	07120	.00510	.00557	.05877	.85885	.43023	1.99627	.00371
1.500	-3.045	.95600	.10386	07168	.00389	.00298	.04629	.85939	.43149	1.99168	00567
1.500	-1.988	.95705	.10560	07287	.00273	.00057	.03322	.85977	.43348	1.98341	.00061
1.500	-1.010	.96025	.10521	07464	.00094	-,00216	.01885	.86293	.43417	1.98752	00248
1.500	~.015	.96067	.10472	07535	00056	00423	.00453	.86350	.43384	1.99035	00248
1.500	1.019	.95997	.10504	07387	00232	00608	00989	.86278	.43380	1.98890	.00061
1.500	2.034	.95831	.10532	07218	00414	00838	02368	.86113	.43349	1.98652	.00061
1.500	3.029	.95375	.10419	07094	00577	01091	03632	.85725	.43082	1.98980	00248
1.500	4.066	.95305	.10133	07032	00729	01408	05110	.85759	.42792	2.00411	00876
1.500	5.091	.95236	.09963	07068	00874	01698	06447	.85754	.42609	2.01256	.00061
1.500	6.094	.95129	.09611	07159	01009	01909	07913	.85777	.42240	2.03070	.04190
1.500	7.109	.94570	.09067	07146	01179	02119	09542	.85446	.41530	2.05748	.04190
1.500	8.140	.94041	.08917	06916	01424	02313	11139	.84999	.41211	2.06254	.03881
		RUN NO.	56/ 0	RN/L =	2.00						
MACH	BETA	CN	CA	CLM	CRL	CYN	CY	CL	CD	L/D	ELEVON
2.000	-6.095	.77889	.08595	04285	.00871	.01556	.08032	.69648	.35913	1.93936	.00602
2.000	-5.094	.78017	.08737	04113	85900.	.01462	.06253	.69716	.36092	1.93160	00654
2.000	-4.088	.77973	.08894	03979	.00435	.01276	.04839	.69619	.36223	1.92197	01273
2.000	-3.068	.77885	.09007	03846	.00312	.00982	.03614	.69496	.36237	1.91463	00955
2.000	-2.030	.77946	.09202	03741	.00209	.00665	.02544	.69483	.36503	1.90348	00955
2.000	-1.016	.77921	.09300	03687	.00074	.00361	.01386	.69424	.36585	1.89758	01264
5.000	022	.77886	.09260	03675	00075	.00077	.00316	.69404	. 36538	1.89953	01583
5.000	1.013	.77873	.09253	03677	00198	00222	00844	.69395	.36526	1.89986	00355
5.000	2.026	.77982	.09256	03651	00343	00527	01969	.69495	.36568	1.90046	01264
2.000	3.021	.77977	.09082	03753	00471	00849	03001	.69555	.36401	1.91078	01256
2.000	4.056	.78140	.08938	03946	00611	01129	01.332	.69759	.36324	1.92046	01264
2.000	5.099	.78038	.08795	04037	00804	01298	05714	.69716	.36151	1.92844	01264
5.000	6.084	.77848	.08650	04264	01048	01402	07552	.69593	. 35944	1.93613	01574
2.000	7.097	.77982	.08516	04396	01295	01417	09430	.69765	. 35869	1.94500	00546
2.000	8.147	.77798	.08445	04542	01566	01403	11404	.69623	.35729	1.94863	01256

(SJ4025) (28 OCT 75)

REFERENCE DATA

SREF	2690.0000 SQ.FT.	XMRP	1076.7000 IN	. xo	ALPHA		21.000	BOFLAP	.000
LREF	474.8000 INCHES	YMRP	.0000 IN	. YO	SPOBR	K	35.000	GRITNO	50.000
BREF	936.6800 INCHES	ZMRP	375.0000 IN	. ZO	ELEVO	N	.000	AILRON	.000
SCALE	0150				님, 맛이 눈길 전하는 하고 그는 게 하네요. 항생님의 장면서 보고 주었다.				

	RUN NO.	32/ 0 F	N/L = 2.00					
MACH	BETA	ALPHA	Q(PSF)	AILRON	ELEV-L	ELEV-R	CAC	CAB
1.500	-6.092	20.45596	476.87221	.03466	.04456	02476	.01707	.03230
1.500	-5.071	20.45552	476.95802	.03457	.03819	03095	.01790	.03372
1.500	-4.046	20.45990	476.87221	.04085	.04456	03714	.01846	.03487
1.500	-3.0+5	20.46069	477.00092	.04386	.03819	04953	.01867	.03528
1.500	-1.988	20.45985	476.82931	.04395	.04456	04333	.01915	.03627
1.500	-1.010	20.45637	477.04383	.04704	.04456	04953	.01956	.03779
1.500	015	20.45488	477.08673	.04704	.04456	04953	.01928	.03820
1.500	1.019	20.44832	477.17254	.04395	.04456	04333	.01925	.03761
1.500	2.034	20.44877	477.08673	.04395	.04456	04333	.01918	.03663
1.500	3.029	20.44771	477.08673	.04704	.04456	04953	.01869	.03551
1.500	4.066	20.44931	477.21544	.04696	03819	05572	.01824	.03639
1.500	5.091	20.44943	477.12963	.04395	.04456	04333	.01741	.03351
1.500	6.094	20.44843	477.21544	.07905	.12095	03714	.01644	.03220
1.500	7.109	20.44446	477.25834	.07905	.12095	03714	.01503	.03027
1.500	8.140	20.44905	477.21544	.08214	.12095	04333	.01485	.03008
	RUN NO.	56/ 0 F	N/L = 2.00					
MACH	BETA	ALPHA	Q(PSF)	AILRON	ELEV-L	ELEV-R	CAC	CAB
2.000	-6.095	20.97972	475.55041	01875	01273	.02476	.01244	.02429
2.000	-5.094	20.98133	475.47884	01892	02546	.01238	.01242	.02435
2.000	-4.088	20.98035	475.47884	01273	02546	.00000	.01252	.02454
2.000	-3.068	20.98144	475.44306	00955	01910	.00000	.01257	.02466
2.000	-2.030	20.98210	475.51463	00955	01910	.00000	.01305	.02470
2.000	-1.016	20.98223	475.40727	00645	01910	00619	.01320	.02479
2.000	022	20.98389	475.44306	00964	02546	00619	.01322	.02532
2.000	1.013	20.98384	475.47884	00955	019:0	.00000	.01306	.02520
2.000	2.026	20.98421	475.40727	00645	01910	00619	.01287	.02429
2.000	3.021	20.98165	475.40727	00017	01273	01238	.01264	.02438
2.000	4.056	20.98113	475.44306	00645	01910	00619	.01243	.02407
2.000	5.099	20.97928	475.51463	00645	01910	00619	.01236	.02369
2.000	6.084	20.97602	475.40727	00336	01910	01238	.01236	.02366
2.000	7.097	20.97742	475.29992	00327	01273	00619	.01247	.02391
5.000	8.147	20.97090	475.33570	00017	01273	01239	.01254	.02416

LAGSA TABULATED SOURCE DATA

PAGE 51 (RJ4026) (28 OCT 75)

BASELINE (LARC UPAT 1118) LA-63A

	REFEREN	ICE DATA							PARAMETRIC	DATA	
SREF = LREF = BREF = SCALE =	2690.0000 S0 474.8000 IN 936.6800 IN .0150	ICHES YMRP	0	000 IN. XO 000 IN. YO 000 IN. ZO				ALPHA = SPOBRK = ELEVON =	21.000 55.000 10.000	BDFLAP = GRITNO = AILRON =	.000 50.000 .000
		RUN NO.	31/ 0	RN/L =	2.00						
MACH 1.500 1.500 1.500 1.500 1.500 1.500 1.500 1.500 1.500 1.500	-5.052 -4.064 -3.063 -2.006 -1.029 015 1.000 2.013 3.046 4.062 5.086 6.107 7.101	CN 1.02737 1.02157 1.02021 1.02364 1.0369 1.02791 1.02627 1.02434 1.01810 1.01445 1.00596 .99306 .99367 .97607	CA .11190 .11531 .11565 .11663 .11806 .11779 .11711 .11575 .11551 .11362 .11189 .10954 .10687 .10504 .10290	CLM129361270012623127351286512931129021278012605123381188011347108061063510534	CBL .00952 .00896 .00775 .00547 .00352 .00142 00123 00366 00609 00914 01243 01691 02047 02424 02783	CYN .01183 .01000 .00682 .00361 .00040 00234 00735 00968 01299 01627 02040 02339 02559 02743	CY .08612 .05943 .05416 .04320 .03170 .01866 .00535 00714 01798 02975 04046 04837 06006 07259 08760	CL .92349 .91692 .91554 .91842 .92449 .92200 .92071 .91938 .91364 .91087 .90354 .89229 .88445 .87791	CD .46387 .46492 .46475 .46686 .47073 .46947 .46823 .46627 .46383 .46079 .45617 .44360 .43933 .43417	L/D 1.99084 1.97220 1.96997 1.96721 1.96399 1.963636 1.97177 1.96975 1.97676 1.98070 1.98543 1.99381 1.99829 2.00542	ELEVON 10.03102 10.03429 10.01563 10.01881 10.01572 10.03492 10.04127 10.06664 10.06673 10.07310 10.09847 10.11757 10.12712 10.13348 10.13985
		RUN NO.	55/ 0	RN/L =	2.00						
MACH 2.000 2.000 2.000 2.000 2.000 2.000 2.000 2.000 2.000 2.000 2.000	BETA -6.094 -5.056 -4.069 -3.049 -2.011 -1.035 022 .973 2.007 3.020 4.055 5.098 6.101 7.097 8.090	CN .82843 .82978 .82791 .82827 .82824 .82979 .83054 .82931 .82855 .83009 .82933 .83000 .82993	CA .10120 .10251 .10374 .10481 .10564 .10600 .10577 .10577 .10502 .10536 .10416 .10266 .10064 .0925	CLM08296081380797007785076680766307623076550768407893082920827808452	CBL .00968 .00704 .00509 .00353 .00217 .00279 0083 00225 00325 00525 00702 30886 01139 011419	CYN .01570 .01486 .01322 .01023 .00694 .00389 .00094 00177 00482 00828 01097 01260 01324 01355	CY .07887 .06228 .04744 .03525 .02490 .01367 .00301 00861 01927 02927 04262 05667 07503 09464 11484	CL .73738 .73818 .73601 .73595 .73570 .73686 .73771 .73648 .73603 .73734 .73620 .73836 .73901 .73948 .74010	CD .39089 .39260 .39305 .39421 .39525 .39501 .39592 .39564 .39469 .39557 .29363 .39251 .39102	L/D 1.88640 1.88023 1.87254 1.86689 1.86135 1.86071 1.86329 1.96146 1.86400 1.87026 1.88112 1.88993 1.89750	ELEYON 9.82732 9.82732 9.82732 9.81777 9.81777 9.82095 9.80539 9.80537 9.81821 9.82776 9.85004 9.85604 9.85605 9.86905 9.87232

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BASELINE (LARC UPWT 1118) LA-63A

(SJ4026) (28 OCT 75)

REFERENCE DATA

SREF	2690.0000 SQ.FT.	XMRP	1075.7000	IN.	XO	ALPHA .	21.000	BOFLAP =	.000
LREF	474.8000 INCHES	YMRP	.0000	IN.	YO	SPDBRK =	55.000	GRITNO .	50.000
BREF	936.6800 INCHES	ZMRP	375.0000	1N.	ZO	ELEVON -	10.000	AILRON =	.000
CONTE	DIED								

RUN NO.	31/ 0	RN/L .	2.00

MACH	BETA	ALPHA	Q(PSF)	AILRON	ELEV-L	ELEV-R	CAC	CAB
1.500	-6.093	20.45443	476.82931	.03304	10.06406	9.99798	.01611	.02995
1.500	-5.052	20.44713	476.82931	.04250	10.07679	9.33179	.01689	.03155
1.500	-4.064	20.44589	476.95802	.05480	10.07043	9.96084	.01669	.03178
1.500	-3.063	20.44564	476.82931	.05798	10.07679	9.96084	.01684	.03239
1.500	-2.006	20.44981	476.74350	.06107	10.07679	9.95465	.01739	.03405
1.500	-1.029	20.44774	477.00092	.08017	10.11499	9.95465	.01730	.03397
1.500	015	20.44595	477.12963	.09281	10.13408	9.94845	.01730	.03420
1.500	1.000	20.44517	476.95802	.11200	10.17864	9.95465	.01709	.03403
1.500	2.013	20.44284	477.00092	.11828	10.18501	9.94845	.01695	.03356
1.500	3.046	20.44311	477,00092	.12464	10.19774	9.94845	.01664	.03316
1.500	4.062	20.44149	477,12963	.14383	10.24230	9.95465	.01652	.03332
1.500	5.086	20.43819	477.04383	.16292	10.28049	9.95465	.01601	.03238
1.500	6.107	20.43568	477.09673	.17247	10.29959	9.95465	.01528	.03129
1.500	7.101	20.44248	477.12963	.17884	10.31232	9.95465	.01488	.03057
1.500	8.113	20.43221	477.12963	.18520	10.32505	9.95465	.01488	.03060
	RUN NO.	55/ 0 R	N/L = 2.00					

MACH 2.000 2.000 2.000 2.000 2.000 2.000 2.000 2.000 2.000 2.000 2.000	BETA -6.094 -5.056 -4.069 -3.049 -2.011 -1.035 022 .973 2.007 3.020 4.055	ALPHA 20.96387 20.96373 20.96165 20.96415 20.97963 20.97525 20.97691 20.97816 20.97891 20.96553	0(PSF) 475.33570 475.33570 475.40727 475.55041 475.47884 475.47884 475.44306 475.40727 475.51463 475.37149 475.47884	AILRCN 17694 17056 17056 18021 18021 17703 16783 16464 15828 14882 13927	ELEV-L 9.65030 9.65666 9.65666 9.63756 9.63756 9.64393 9.65666 9.64393 9.656666 9.66939 9.66849	ELEV-R 10.00417 9.99798 9.99798 9.99798 9.99798 9.97322 9.97322 9.97322 9.96703	CAC .01236 .01231 .01236 .01245 .01259 .01270 .01263 .01254 .01247	CAB .02290 .02312 .02341 .02391 .02448 .02495 .02523 .02548 .02526 .02366
2.000	3.020	CONTRACTOR OF STREET		14882	9.66939			.02322

LAGSA TABULATED SOURCE DATA

PAGE 53

BASELINE (LARC UPWT 1118) LA-63A

(RJ4027) (28 OCT 75)

FERE		

PARAMETRIC DATA

SREF = LREF = BREF = SCALE =		.FT. XMRP CHES YMRP CHES ZMRP	1076.7 0 . 375.0	000 IN. YO				ALPHA = SPDBRK = ELEVON =	6.000 55.000 -10.000	BDFLAP = GRITNO = BETA =	.000 50.000 .000
		RUN NO.	16/ 0	RN/L =	2.01						
MACH 1.500 1.500 1.500 1.500 1.500 1.500 1.500 1.500 1.500	A!LRON -5.334 -4.054 -1.981 -1.021 149 1.012 2.003 4.038 4.823 5.996 7.973 9.799	CN .21235 .21411 .21085 .21512 .21512 .21371 .21046 .21250 .21484 .21430 .21420 .21205	CA .13786 .13693 .13602 .13590 .13591 .13710 .13768 .13860 .13893 .13930 .14059	CLM .04019 .04056 .04155 .04153 .04153 .04268 .04269 .04114 .040111	CBL 00848 00631 00298 00208 00059 .00112 .00220 .00529 .00637 .00794 .01050 .01263	CYN 00912 00768 00508 00557 00455 00286 00123 00062 .00062 .00183	CY .01179 .00871 .00619 .00434 .00249 .00116 00092 00366 00388 00555 01035	CL .19657 .19842 .19527 .19952 .19813 .19477 .19673 .19896 .19839 .19824 .19598 .20021	CD .15955 .15982 .15757 .15791 .15760 .15940 .16057 .16083 .16120 .16224 .16361	L/D 1.23201 1.24937 1.23928 1.26344 1.25662 1.22805 1.23414 1.23912 1.23351 1.22974 1.20795	ELEVON -10.04524 -10.04623 -9.94203 -10.01027 -9.80667 -10.05099 -10.05228 -10.02139 -9.96023 -10.06700 -9.83127

BASELINE (LARC UPWT 1118) LA-63A

(5J4027) (28 OCT 75)

REFERENCE DATA

SREF		2690.0000	SQ.FT.	XMRP	1076.7000	IN.	XO
LREF	=	474.8000	INCHES	YMRP	.0000	IN.	YO
BREF		936.6800	INCHES	ZMRP	375.0000	IN.	ZO
SCALE		0150					

PARAMETRIC DATA

ALPHA	6.000	BOFLAP		.000
SPOBRK	55.000	GRITNO	=	50.000
ELEVON	-10.000	BETA		.000

RUN NO. 16/ 0 RN/L = 2.01

MACH	AILRON	ALPP'	Q(PSF)	ELEV-L	ELEV-R	CAC	CAB
1.500	-5.334	6.07409	477.98770	-15.37936	-4.71112	.01537	.03100
1.500	-4.054	6.07449	477.90190	-14.09987	-5.99260	.01526	.03106
1.500	-1.981	6.07440	477.85899	-11.92282	-7.96124	.01498	.03184
1.500	-1.021	€.07873	477.77319	-11.03164	-8.98890	.01505	.03224
1.500	149	6.07787	477.90190	-9.95585	-9.65749	.01493	.03194
1.500	1.012	6.07413	478.07351	-9.03919	-11.06278	.01510	.03076
1.500	2.003	6.07842	477.90190	-8.05889	-12.06567	.01526	.03009
1.500	4.038	6.07721	478.07351	-5.98369	-14.05908	.01562	.02989
1.500	4.823	6.07615	477.90190	-5.13706	-14.78339	.01570	.03006
1.500	5.996	6.07916	477.81609	-4.00398	-15.99677	.01575	.03034
1.500	7.973	6.07564	477.94480	-2.09429	-18.03970	.01574	.03050
1.500	9.799	6.08070	477.90190	03183	-19.63071	.01566	.03053

OF POOP, QUALITY

(RJ4028) (28 OCT 75)

REFERENCE DATA

0.0000 SQ.FT. XMRP = 1276.7000 IN. XO 4.8000 INCHES YMRP = .0000 IN. YO 6.6800 INCHES ZMRP = 375.0000 IN. ZO .0150	F = 474.8000 F = 936.6800
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PARAMETRIC DATA

ALPHA	6.000	BDFLAP	.000
SPDBRK	55.000	GRITNO	50.000
ELEVON	.000	BETA	.000

RUN NO. 17/ 0 RN/L = 2.00

MACH 1.500 1.500 1.500 1.500 1.500 1.500 1.500 1.500 1.500	AILRON -5.018 -3.992 -2.021 951 010 994 2.009 4.008 4.661 6.080 7.897	CN .26886 .26818 .26971 .26769 .26620 .27018 .26856 .26838 .26874 .26879	CA .13501 .13372 .13174 .13130 .13133 .13236 .13324 .13335 .13486 .13681	CLM .00108 .00104 .00140 .00241 .00241 .00123 .00163 .00124 .00076	CBL 00962 00681 00381 00265 00103 .00050 .00181 .00531 .00611 .00796	CYN 00411 00410 00409 00415 00427 00423 00443 00443 00436 00423	CY .00310 .00260 .00174 .00245 .00286 .00194 .00238 .00203 .00203	CL .25306 .25253 .25426 .25229 .25081 .25465 .25295 .25277 .25309 .25301	CD .16270 .16134 .15954 .15889 .15876 .16021 .16091 .16100 .16133 .16254 .16425	L/D 1.55540 1.56514 1.59370 1.58777 1.57977 1.57951 1.57195 1.57001 1.56663 1.52669	ELEVON17034 .00715 .00323 .002440409403322 .0342702663 .23669 .0376215047
1.500	9.832	.27336	.13939	00190	.01425	00423	.00001	.25708	.16753	1.53456	.15047

BASELINE (LARC UPWT 1118) LA-63A

(SJ4028) (28 OCT 75)

REFERENCE DATA

SREF	2690.0000	SQ.FT.	XMRP	1076.7000	IN.	XO	
LREF	474.8000	INCHES	YMRP	.0000	IN.	YO	
BREF	936.6800	INCHES	ZMRP	375.0000	IN.	ZO	
SCALE	0150						

PARAMETRIC DATA

ALPHA	*	6.000	BOFLAP	.000
SPOBRK		55.000	GRITNO	50.000
ELEVON	=	.000	BETA	.000

RUN NO. 17/ 0 RN/L = 2.00

AILRON	ALPHA	Q(PSF)	ELEV-L	ELEV-R	CAC	CAB
-5.018	6.07438	478.11641	-5.18799	4.84732	.01546	.02855
-3.992	6.07401	478.03061	-5.98488	3.99919	.01530	.02842
-2.021	6.07492	478.11641	-2.01790	2.02436	.01505	.02902
951	6.07519	477.38706	94848	.95337		.02884
010	6.07482	476.65770	05093	03095		.62878
.994	6.07559	476.31447	.96121	-1.02766		.02829
2.009	6.07537	476.18576	2.04337	-1.97483	.01540	.02796
4.008	6.07348	475.58511	3.98488	-4.03015	.01550	.02892
4.661	6.07381	475.58511	4.69783	-4.62445	.01505	.02908
6.080	6.07267	475.67092	6.11737	-6.04212	.01573	.02943
7.897	6.07216	475.71382	7.74697	-8.04791	.01573	.02987
9.832	6.07330	475.75672	10.03223	-9.63273	.01559	. 02969
	-5.018 -3.992 -2.021 951 010 994 2.009 4.008 4.661 6.080 7.897	-5.018 6.07438 -3.992 6.07401 -2.021 6.07492951 6.07519010 5.07482 .994 6.07559 2.009 6.07537 4.008 5.07348 4.661 6.07381 6.080 5.07267 7.897 6.07216	-5.018 6.07438 478.11641 -3.992 6.07401 478.03061 -2.021 6.07492 478.11641951 6.07519 477.38706010 6.07559 476.31447 2.009 6.07559 476.18576 4.008 6.07348 475.58511 4.661 6.07381 475.58511 6.080 6.07267 475.67092 7.897 6.07216 475.71382	-5.018 6.07438 478.11641 -5.18799 -3.992 6.07401 478.03061 -5.98488 -2.021 6.07492 478.11641 -2.01790951 6.07519 477.3870694848010 6.07492 476.65770 -05093 .994 6.07559 476.31447 .96121 2.009 6.07537 476.18576 2.04337 4.008 6.07348 475.58511 3.98488 4.661 6.07381 475.58511 4.69783 6.080 6.07267 475.67092 6.11737 7.897 6.07216 475.71382 7.74697	-5.018 6.07438 478.11641 -5.18799 4.84732 -3.992 6.07401 478.03061 -5.98488 3.99919 -2.021 6.07492 478.11641 -2.01790 2.02436 951 6.07519 477.3870694848 .95337 010 6.07519 476.657700509303095 .994 6.07559 476.31447 .96121 -1.02766 2.009 6.07537 476.18576 2.04337 -1.97483 4.008 6.07348 475.58511 3.98488 -4.03015 4.661 6.07381 475.58511 4.69783 -4.62445 6.080 6.07267 475.67092 6.11737 -6.04212 7.897 6.07216 475.71382 7.74697 -8.04791	-5.018 6.07438 478.11641 -5.18799 4.84732 .01546 -3.992 6.07401 478.03061 -5.98488 3.99919 .01530 -2.021 6.07492 478.11641 -2.01790 2.02436 .01505951 6.07519 477.38706 -94848 .95337 .01505010 6.07482 476.65770 -05093 -03095 .01511 .994 6.07559 476.31447 .96121 -1.02766 .01527 2.009 6.07537 476.18576 2.04337 -1.97483 .01540 4.008 6.07348 475.58511 3.98488 -4.03015 .01550 4.661 6.07381 475.58511 4.69783 -4.62445 .01555 6.080 6.07267 475.67092 6.11737 -6.04212 .01573 7.897 6.07216 475.71382 7.74697 -8.04791 .01573

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LAGSA TABULATED SOURCE DATA

PAGE 55

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PARAMETRIC DATA

SREF = LREF = BREF = SCALE =	The state of the s	I.FT. XMRP ICHES YMRP ICHES ZMRP	A 100 100 100 100 100 100 100 100 100 10	000 IN. X0 000 IN. Y0 000 IN. Z0				ALPHA = SPDBRK = ELEVON =	6.000 55.000 10.000	BOFLAP = GRITNO = BETA =	.000 50.000 .000
		RUN NO.	18/ 0	RN/L =	2.00						
MACH 1.500 1.500 1.500 1.500 1.500 1.500 1.500 1.500	AILRON -5.164 -3.953 -1.989 -1.003 .049 1.059 2.016 3.949 5.123	CN .33182 .33146 .32917 .32953 .33009 .33027 .32962 .32964 .33104	CA .14463 .1429 .14265 .14301 .14264 .14225 .14233 .14359 .14437	CLM 04680 04684 04562 04614 04566 04575 04575	CBL 01G17 00818 00480 00285 00103 .00068 .00215 .00541	CYN 00088 00138 00271 00319 00397 00459 00525 00646 00707	CY .00096 .00145 .00166 .00120 .00177 .00261 .00276	CL .31457 .31425 .31215 .31246 .31306 .31327 .31262 .31261	CO .17925 .17870 .17683 .17722 .17692 .17655 .17657 .17782	L/0 1.75490 1.75852 1.76526 1.76315 1.76948 1.77440 1.77048 1.75749	9.79855 10.00687 9.95263 9.96520 10.03438 9.95284 9.97704 9.97887 9.97011

BASELINE (LARC UPWT 1118) LA-E3A

BASELINE (LARC UPWT 1118) LA-63A

(SJ4029) (03 NOV 75)

REFERENCE DATA

PARAMETRIC DATA

SREF	2690.0000 SQ.FT.	XMRP	1076.7000 11	N.	xo	ALPHA		6.000	BUFLAP =	.000
	474.8000 INCHES					SPDBR(;)	=		GRITNO =	CONTRACTOR OF THE PARTY OF THE
	936.6800 INCHES	ZMRP	375.0000 11	N.	ZO	ELEVON :			BETA =	
SCALE	930.0000 INCHES	ZMRP	3/5.0000 11	N.	20	ELEVON	•	10.000	BETA =	

RUN NO	18/ 0	PN/I =	2 00

ELEV-R	CAC	CAB
14.96292	.01614	.03055
13.96003	.01608	.03067
11.94186	.01583	.03033
10.98849	.01586	.02980
9.98560	.01588	.03002
8.93937	.01592	.03049
7.96124	.01603	.03081
6.02974	.01609	.03037
4.84732	.01603	.02995
	14.96292 13.96003 11.94186 10.98849 9.98560 8.93937 7.96124 6.02974	14.96292 .01614 13.96003 .01608 11.94186 .01583 10.98849 .01586 9.98560 .01588 8.93937 .01592 7.96124 .01603 6.02974 .01609

OF POOR QUALITY

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BASELINE (LARC UPHT 1118) LA-63A

(RJ4030)		1	50	UCI	13	- 7
김대화교환자 중심하는 경기를 하는데	4-					

REFERENCE DATA

SREF = LREF = BREF = SCALE =	2690.0000 9 474.8000 9 936.6800 0 .0150			0000 IN. X0)			ALPHA = SPDBRK = ELEVON =	10.000 55.000 -10.000	BDFLAP = GRITNO = BETA =	50.000 .000
		RUN NO.	15/ 0	RN/L =	2.01						
MACH 1.500 1.500 1.500 1.500 1.500 1.500 1.500 1.500 1.500	A1LRON -5.365 -4.022 -1.959 -1.053 2.042 4.012 4.774 6.006 8.021 9.813	CN .41160 .41214 .41275 .41036 .41267 .41310 .41169 .41276 .41258 .41256	CA .12957 .12885 .12793 .12779 .12734 .12769 .12777 .12876 .12944 .13109 .13243	CLM .01239 .01277 .01285 .01370 .01308 .01331 .01328 .01290 .01255 .01196 .01141	CBL - 00744 - 00598 - 00293 - 00133 - 00238 - 00522 - 00607 - 00780 - 00996 - 01214	CYN 00769 00550 00555 00505 00442 00375 00335 00211 00171 00087 .00019	.00839 .00691 .00518 .00403 .00263 .00175 .00098 00133 00293 00353 00510 00734	CL .38230 .38296 .38372 .39140 .38375 .38403 .38409 .38254 .38358 .38329 .38298 .38647	CD .20011 .19951 .19871 .19814 .19853 .19953 .19953 .20017 .20178 .20379	L/D 1.91043 1.91951 1.93104 1.92491 1.93703 1.93436 1.93381 1.91909 1.92244 1.91488 1.89801 1.89647	ELEVON -10.02685 -10.01441 -9.93859 -10.02300 -9.89190 -10.00333 -9.99897 -10.04685 -9.9107 -9.96571 -10.00670 -9.78715
		RUN NO.	51/ 0	RN/L =	2.00						
MACH 2.000 2.000 2.000 2.000 2.000 2.000 2.000 2.000 2.000	AILRON -5.388 -3.985 -1.921 -1.057 140 1.034 2.131 3.949 4.760 5.948 7.945 9.805	CN .33492 .33423 .33477 .33311 .33421 .33413 .33371 .33351 .33385 .33460 .33512 .33637	CA .11398 .11292 .11214 .11211 .11207 .11221 .11249 .11349 .11357 .11380 .11536 .11620	CLH .00769 .00781 .00812 .00850 .00840 .00896 .00839 .00851 .00768 .00774 .00705	CBL 00509 00405 00208 00146 00050 .00045 .00118 .00282 .00353 .00442 .00621	CYN 00024 00013 .00016 .00038 .00060 .00071 .00093 .00095 .00106 .00134	CY .00104 .00090 .00035 .00052 .00058 .00080 .00089 -000017 -00001 .00018	CL .30787 .30739 .30806 .30644 .30738 .30693 .30695 .30695 .30754 .30776	CD .17429 .17312 .17245 .17211 .17236 .17248 .17267 .17362 .17377 .17414 .17576 .17681	L/0 1.76640 1.77555 1.78637 1.78046 1.78398 1.78209 1.77752 1.76557 1.76584 1.76611 1.75099	ELEVON -10.11918 -10.05155 -9.96318 -10.06411 -9.79712 -10.04126 -9.94125 -10.06656 -9.99877 -10.08579 -10.02030 -9.86885

LAGSA TABULATED SOURCE DATA

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BASELINE (LARC UPHT 1118) LA-63A

(SJ4030) (28 OCT 75)

PARAMETRIC DATA

ALPHA	=	10.000	BOFLAP	.000
SPOBRK	2	55.000	GRITNO	50.000
ELEVON	2	-10.000	BETA	.000

SREF LREF BREF SCALE	* * * *	2690.0000 474.9000 936.6800 .0150	INCHES YMRP		7000 IN. X 0000 IN. Y 0000 IN. Z	0			ALPHA = SPOBRK = ELEVON =	10.000 55.000 -10.000
			RUN NO.	15/ 0	RN/L =	2.01				
			MACH 1.500 1.500 1.500 1.500 1.500 1.500 1.500 1.500 1.500	AILRON -5.365 -4.022 -1.959 -1.034 185 1.053 2.042 4.012 4.774 6.006 8.021 9.813	ALPHA 10.15561 16.15744 10.15750 10.15556 10.15644 10.15792 10.15905 10.15622 10.15705 10.15705 10.15637 10.15814	0(PSF) 477.85899 477.73028 477.94480 477.85899 477.564446 477.61609 477.90190 478.03061 478.03061 478.03061 478.03061 477.98770	ELEV-L -15.39209 -14.03621 -11.89736 -11.05710 -10.07679 -8.95009 -7.95704 -6.03462 -5.13706 -3.95946 -1.98608 .02546	ELEV-R -4.66160 -5.99260 -7.97981 -8.98890 -9.70702 -11.05659 -12.04091 -14.05908 -14.68:34 -15.97201 -18.02732 -19.59976	CAC .01577 .01574 .01579 .01577 .01580 .01584 .01580 .01577 .01579 .01591 .01610	CAB .02962 .02958 .02994 .02997 .03011 .03029 .03015 .02976 .03004 .03023 .03051
			RUN NO.	51/ 0	RN/L =	2.00				
			MACH 2.000 2.000 2.000 2.000 2.000 2.000 2.000 2.000 2.000 2.000	AILRON -5.388 -3.985 -1.921 -1.057 140 1.034 2.131 3.949 4.760 5.948 7.945 9.805	ALPHA 10.72021 10.71996 10.72069 10.72061 10.73477 10.73510 10.73510 10.73480 10.73482 10.73500 10.73521	Q(PSF) 475.12099 475.19256 475.19256 475.15678 475.22835 475.12099 475.22835 475.26413 475.29992 475.44306 475.47884	ELEV-L -15.50667 -14.03621 -11.88463 -11.12076 -9.93675 -9.00737 -7.81063 ~6.11737 -5.23891 -4.13766 -2.07520	ELEV-R -4.72969 -6.06689 -8.04172 -9.05747 -9.65749 -11.07516 -12.07186 -14.01574 -14.75863 -16.03391 -17.96541 -19.67404	CAC .01138 .01129 .01114 .01108 .01109 .01114 .01119 .01140 .01144 .01151	CAB .02089 .02139 .02101 .02095 .02086 .02095 .02080 .02089 .02133 .02156 .02222

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BASELINE (LARC UPWT 1118) LA-63A

(RJ4031) (28 OCT 75 1

REFERENCE DATA

PARAMETRIC DATA

SREF = LREF = BREF = SCALE =	2690.0000 474.8000 936.6800 .0150		CONTRACTOR OF STREET	7000 IN. X0 0000 IN. Y0 0000 IN. Z0				ALPHA = SPOBRK = ELEVON =	10.000 55.000 -5.000	BDFLAP = GRITNO = BETA =	.000 50.000 .000
		RUN NO.	60/ 0	RN/L =	2.00						
MACH	AILRON	I CN	CA	CLM	CBL	CYN	CY	CL	CD	L/D	ELEVON
2.000	-5.051	.34997	.11296	00346	00516	.00061	.00072	.32281	.17616	1.83252	-5.04485
2.000	-3.949		.11260	00394	00429	.00067	.00033	.32272	.17578	1.83597	-5.00125
2.000	-2.416		.11207	00352	00298	.00067	.00080	.32328	.17534	1.84372	-4.69174
2.000	-1.033	.34799	.11143	00208	00147	.00056	.00056	.32115	.17428	1.84270	-4.99515
2.000	166	.34749	.11131	00258	00077	.00051	.00051	.32068	.17407	1.84220	-4.96425
2.000	.258		.11123	00121	00047	.00051	.00010	.31942	.17373	1.83861	-5.58603
2.000	1.047		.11111	00268	.00028	.00052	.00015	.32218	.17416	1.84985	-5.01952
2.000	1.847		.11154	00260	.00114	.00035	.00009	.32211	.17458	1.34505	-5.04290
2.000	4.023		.11206	00216	.00269	.00040	.00110	.32149	.17500	1.83710	-4.97178
2.000	4.834	.34729	.11246	00278	.00353	.00029	.00073	.32027	.17517	1.82838	-4.86633
2.000	6.006		.11307	00291	.00469	.00035	.00064	.32114	.17596	1.82511	-5.02576
2.000	7.887		.11453	00415	.00647	.00030	.00026	.32233	.17767	1.81422	-4.95248
2.000	9,607		.11571	00543	.00821	.00031	.000022	.32521	.17941	1.81263	-4.91596

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UPWI	11191	LA-DJA
	UPWI	UPWT 1118)

(SJ4031) (28 OCT 75)

REFERENCE DATA

PARAMETRIC DATA

LREF	12	2690.0000 S0 474.8000 IN 936.6800 IN	NCHES	YMRP	=	.0000	IN.	YO			SPDBRK : ELEVON :	•	10.000 55.000 -5.000	GRITNO	•	50.000
			R	UN NO.		60/ 0 RM	1/L		2.00							

	MACH	AILRON	ALPHA	Q(PSF)	ELEV-L	ELEV-R	CAC	CAB
	2.000	-5.951	10.73229	475.19256	-10.09589	.00519	.01156	.02174
	2.000	-3.949	10.73295	475.22835	-8.95009	-1.05242	.01149	.02149
	2.000	-2.416	10.73316	475.29992	-7.09768	-2.26580	.01144	.02124
	2.000	-1.033	10.73256	475.37149	-6.02825	-3.96205	.01121	.02083
	2.000	166	10.73294	475.40727	-5.13070	-4.79779	.01114	.02090
	2.000	.259	10.72928	475, 19256	-5.32803	-5.84402	.01114	.02092
	2.000	1.047	10.73438	475.44306	-3.97215	-6.06689	.01118	.02115
	2.000	1.847	10.73318	475.26413	-3.19555	-6.89025	.01137	.02139
	2.000	4.023	10.73324	475.33570	94848	-8.99509	.01142	.02133
	2.000	4.834	10.73196	475.51463	03183	-9.70083	.01140	.02143
	5 000	6.006	10.73244	475.55041	.98031	-11.03183	.01146	.02153
	2.000	7.887	10.73323	475.47884	2.93456	-12.83951	.01160	.02156
*	2.000	9.607	10.73349	475.58620	4.69147	-14.52338	.01162	.02165

BASELINE (LARC UPWT 1118) LA-63A

(RJ4032) (28 OCT 75)

REFERENCE DATA

SREF = 2690.0000 SQ.FT. XMRP = 1076.7000 IN. XO

PARAMETRIC DATA

ALPHA = 10.000 BDFLAP = .000

- 1	LREF = BREF = SCALE =		CHES YMRP	THE PROPERTY OF STANSAGE STANS	0000 IN. YO				SPDBRK = ELEVON =	55.000	GRITNO = BETA =	50.000
			RUN NO.	14/ 0	RN/L =	2.01						
	MACH	AILRON	CN	CA	CLM	CBL	CYN	CY	CL	CD	L/D	ELEVON
	1.500	-5.042	.46708	.12629	02755	00862	00394	.00420	.43747	.20673	2.11616	09535
	1.500	-3.967	.46725	. 12565	02738	00666	00380	.00189	.43774	.20612	2.12368	.00123
	1.500	-1.977	.46671	.12484	02549	00360	00397	.00272	.43735	.20525	2.13084	.04151
	1.500	998	.46364	.12437	02406	00211	00414	.00307	.43441	.20424	2.12696	03274
	1.500	025	.46374	.1c438	02416	00072	00419	.00236	.43451	.20426	2.12722	01918
	1.500	1.020	.46528	.12486	02575	.00126	00434	.00228	.43595	.20501	2.12648	.02991
	1.500	3.005	.47178	.12540	03164	.00464	00461	.00293	.44224	.20669	2.13963	1.04304
	1.500	4.030	.46578	.12565	02696	.00620	00467	.00248	.43629	.20597	2.11923	.02476
	1.500	4.737	.47044	.12638	02815	.00707	00466	.00156	.44075	.20743	2.12478	. 06285
	1.500	5.994	.46915	.12750	02778	.00869	00465	.00056	.43929	.20830	2.10892	04203
	1.500	7.965	.47011	.13004	02907	.01211	00475	.00060	.43979	.21096	2.08472	00829
	1 500	0 075	47070	17211	- 07120	01520	- 00502	00102	44001	21700	2 06499	12760

(RJ4032) (28 OCT 75)

PARAMETRIC DATA

REFERENCE DATA

SREF = 2690.0000 SQ.FT. XMRP = 1076.7000 IN. XO LREF = 474.8000 INCHES YMRP = .0000 IN. YO BREF = 936.6800 INCHES ZMRP = 375.0000 IN. ZO ALPHA = 10.000 BDFLAP = .000 SPDBRK = 55.000 GRITNO = 50.000 ELEVON = .000 BETA = .000

SCAL	E •	.0150										
			RUN NO.	49/ 0	RN/L =	2.00						
	ACH	AILRON	CN	CA	CLM	CBL	CYN	CY	CL	CD	L/D	ELEVON
	.000	-5.004	.36714	.11513	01735	00581	.00136	.00002	. 33929	.18147	1.86966	05715
5	.000	-3.996	.36912	.11441	01732	00471	.00114	.00059	.34136	.18114	1.88454	02114
5	.000	-1.962	.36756	.11317	01654	00292	.00091	.00159	.34005	.17963	1.89313	.00092
5	.000	994	36643	.11306	01604	00189	.00075	.00087	.33897	.17931	1.89045	.03950
5	.000	.015	. 36665	.11306	01563	00091	.00059	.00050	.33918	.17936	1.89107	01548
5	.000	1.017	.35770	.11339	01650	.00008	.00054	.00017	.34015	.17988	1.89096	01094
5	.000	2.034	.36574	.11368	01653	.00110	.00037	.00095	.33818	.17979	1.88094	.00950
5	.000	3.989	. 36855	.11346	01587	.00346	00001	.00055	.34097	.18011	1.89315	.00850
5	.000	4.778	. 36854	.11350	01677	.00422	00012	.00020	.34095	.18015	1.89258	.08540
5	.000	6.039	.36788	.11388	01695	.00505	00029	.00045	.34024	.18040	1.88600	.05903
- 2	.000	8.100	. 36829	.11521	01727	.00724	00079	.00064	.34040	.18178	1.87261	05578
5	.000	9.829	.37054	.11682	01887	.00914	00112	.00093	.34230	.18378	1.86254	.14007

BASELINE (LARC UPWT 1118) LA-63A

(SJ4032) (28 OCT 75)

PARAMETRIC DATA

REFERENCE DATA

		2690.0000				IN.	xo	ALPHA	10.000	BDFLAP	.000
LREF		474.8000	INCHES	YMRP	.0000	IN.	YO	SPDBPK	55.000	GRITNO	50.000
BREF	-	936.6800	INCHES	ZMRP	375.0000	IN.	70	ELEVON		BETA	.000
SCALE		0150									

RUN NU	1. 14/ 0	RN/L =	2.01				
MACH .	AILRON	ALPHA	Q(PSF)	ELEV-L	ELEV-R	CAC	CAB
1.500	-5.042	10.16382	477.85899	-5.13706	4.94637	.01571	.03028
1.500	-3.967	10.16348	477.68738	-3.96579	3.96824	.01579	.03020
1.500	-1.977	10.16552	477.68738	-1.93515	2.01817	.01530	.03002
1.500	998	10.16430	477.68738	-1.03123	.96575	.01581	.03005
1.500	025	10.16387	477.98770	04456	.00619	.01586	.03013
1.500	1.020	10.16402	478.15932	1.05033	99051	.01595	.03024
1.500	3.005	10.16439	478.03061	4.04854	-1.96245	.01598	.03076
1.500	4.030	10.16+16	477.94480	4.05491	-4.00538	.01601	.03053
1.500	4.737	10.16601	+77.90190	4.79969	-4.67398	.01612	.03050
1.500	5.994	10.16588	477.69738	5.95186	-5.03593	.01621	.03033
1.500	7.965	10.16398	477.55867	7.95704	-7.97362	.01600	.02935
1.500	9.835	10.16178	477.90190	9.96221	-9.70702	.01584	.02934

DATE	17	NOV	75

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BASELINE (LARC UPWT 1118) LA-6	34
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(SJ4032) (28 OUT 75)

-	-	-	-		-	-	-	
BE	6	EΒ	Œ	NE		TO A	1.7	Δ.

PARAMETRIC DATA

LREF = 474.8000 INCHES YMRP BREF = 936.5800 INCHES ZMRP CCALE = .0150			SPDE	PRK = 55.000 VON = .000	GRITNO = 50.000 BETA = .000
RUN NO.	49/ 0 RN/L = 2.	.00			
2.000 2.000 2.000 2.000 2.000 2.000 2.000 2.000	-5.004 10.729+0 475 -3.996 10.73128 475 -1.962 10.73079 475994 10.73079 475 .015 10.73248 475 1.017 10.73237 475 2.034 10.73097 475 3.989 10.73267 475 4.778 10.73329 475 6.039 10.73272 475 8.100 10.73194 475	5.19256 3.99762 5.12099 4.86334 5.26413 6.09827	3.97943 .01 1.96245 .01 1.03395 .01 -03395 .01 -1.02756 .01 -2.02436 .01 -3.98062 .01 -4.69255 .01 -5.98022 .01 -8.15934 .01	C CAB 1175 .02136 1183 .02183 1180 .02252 1178 .02236 1175 .02205 1180 .02189 1183 .02180 1143 .02108 1135 .02095 1135 .02102 1138 .02114 1133 .02114	

BASELINE (LARC UPHT 1118) LA-63A

(RJ4033) (28 OCT 75)

REFERENCE DATA

PARAMETRIC DATA

SREF	2690.0000 SQ.FT.	XMRP		1076.7000	N.	xo	ALPHA	=	10.000	BOFLAP		.000
LREF	474.8000 INCHES	YMRP		.0000	N.	YO	SPOBRK	=	55.000	GRITNO		50.000
BREF	936.6800 INCHES	ZMRP	*	375.0000	N.	ZO	ELEVON	18	10.000	BETA	•	.000

RUN NO. 13/ 0 RN/L = 2.00

MACH	AILRON	CN	CA	CLM	CBL	CYN	CY	CL	CD	L/D	ELEVON
1.500	-5.116	.53367	.13925	07865	01009	00054	.00286	.50069	.23130	2.16472	9.89652
. 500	-4.007	.53359	.13861	07778	00823	00102	.00154	.50072	.23067	2.17075	9.94649
1.500	-2.030	.53105	.13791	07689	00447	00251	.00223	.49835	.22952	2.17127	9.97404
1.500	981	.53477	.13736	07765	00238	00316	.00195	.50210	.22964	2.18649	10.02631
1.500	005	.53191	.13691	07716	00070	00400	.00303	.49939	.22867	2.18388	10.03050
1.500	.970	:53030	.13697	07692	.00098	00456	.00411	.49780	.22843	2.17926	10.04732
1.500	2.031	.52935	. 13676	07583	.00242	00527	.00314	.49590	.22806	2.17883	9.97412
	3.962	.53119	.13761	07659	.00617	00664	.00309	.49856	. 22922	2.17504	10.01044
1.500	5.044	.53339	.13752	07611	.00758	00715	.00456	.50073	. 22955	2.18136	9.97844
COLUMN TO A STATE OF THE STATE	3.962	.52935	.13676	07583 07659	.00242	00527 00664	.00314	.49590	.22925	2.17883 2.17504	9.97

OR POOR QUALITY

(RJ4033) (28 OCT 75)

PARAMETRIC DATA

REFERENCE DATA

SREF	2690.0000	SQ.FT.	XMRP		1076.7000	IN.	xo	ALPHA		10	.000	BDFLAP		.000
LREF	474.8000	INCHES	YMRP		.0000	IN.	YO	SPOBRK		55	.000	GRITNO		50.000
BREF	936.6800	INCHES	ZMRP	•	375.0000	IN.	ZO	ELEVON	•	10	.000	BETA	•	.000

RUN NO. 50/ 0 RN/L = 2.00

MACH	AILRON	CN	CA	CLM	CBL	CYN	CY	CL	CD	L/D	ELEVON
2.000	-5.126	.40717	.12487	04853	00659	.00363	.00021	.37681	.19848	1.89852	9.84302
2.000	-3.987	.40698	.12441	04840	00566	.00313	00041	. 37671	. 19799	1.90264	10.05348
2.000	-1.903	.40793	.12321	04782	00315	.00204	00106	.37786	.19701	1.91801	10.07624
2.000	-1.041	.40674	.12307	04765	00198	.00152	.00068	.37672	. 19663	1.91583	9.99723
2.000	020	.40582	. 12289	04766	00082	.00080	.00067	. 37585	. 19629	1.91478	10.02086
2.000	1.050	.40546	.12228	04712	.00025	.00030	.00063	.37561	. 19563	1.92002	10.02008
2.000	1.385	.40490	.12218	04706	.00122	00014	.00089	.37508	. 19541	1.91940	9.98288
2.000	3.856	.40444	.12280	04651	.00317	00103	.00144	.37451	. 19594	1.91133	9.82379
2.000	5.123	.40523	.12402	0478!	.00458	00181	.00180	.37507	. 19728	1.90120	10.01406

BASELINE (LARU UPWT 1118) LA-63A

(SJ4033) (28 OCT 75)

PARAMETRIC DATA

REFERENCE DATA

SREF	2690.0000 3Q.FT	. XMRP	1076.7000	IN.	xo	ALPHA =	10.000	BDFLAP =	.000
LREF	474.8000 INCHE	S YMRP	.0000	IN.	YO	SPDBRK =	55.000	GRITNO =	50.000
BREF	936.6800 INCHE	S ZMRP	375.0000	IN.	ZO	ELEVON .	10.000	BETA =	.000
SCALE	.0150								

RUN NO. 13/ 0 RN/L = 2.00

MACH	AILRON	ALPHA	Q(PSF)	ELEV-L	ELEV-R	CAC	CAB
1.500	-5.116	10.17075	477.47286	4.78059	15.01245	.01643	.03!19
1.500	-4.007	10.17224	477.60157	5.93913	13.95384	.01645	.03088
1.500	-2.030	10.17099	477.64448	7.94431	12.00377	.01630	.02995
1.500	981	10.17165	477.73028	9.04556	11.00706	.01618	.03014
1.500	005	10.16857	477.73028	10.02587	10.03512	.01623	.03042
1.500	.978	10.16723	477.81609	11.02527	3.06938	.01620	.03031
1.500	2.031	10.16759	477.77319	12.00558	7.94267	.01620	.03046
1.500	3.962	10.16733	477.73028	13.97256	6.04831	.01653	.03152
1.500	5.044	10.17089	477.73028	15.02289	4.93399	.01651	.03164

DA	TE	17	NOA	75

PAGE 63

BASELINE	(LARC	UPWT	111191	LA-63A

(SJ4033) (28 OCT 75)

REFERENCE DATA

PARAMETRIC DATA

SREF = BREF = SCALE =	974.8000 936.6800	INCHES YMRP		7000 IN. X .0000 IN. Y .0000 IN. Z	0			ALPHA = SPOBRK = ELEVON =	10.000 55.000 10.000	BOFLAP = GRITNO = BETA =	.000 50.000 .000
		RUN NO.	50/ 0	RN/L =	2.00						
		MACH 2.000 2.000 2.000 2.000 2.000 2.000 2.000 2.000	AILRON -5.126 -3.987 -1.903 -1.041 020 1.050 1.985 3.956 5.123	ALPHA 10.72817 10.72819 10.73002 10.72867 10.72891 10.72890 10.72890 10.72854 10.72772	Q(PSF) 475.04942 475.01364 474.97785 475.01364 475.12099 475.22835 475.12099 475.15678 475.08521	ELEV-L 4.71693 6.06645 8.17347 8.95644 10.00040 11.06933 11.96738 13.67974 15.13747	ELEV-R 14.96911 14.04051 11.97900 11.03802 10.04132 8.97032 7.99838 5.96783 4.89065	CAC .01203 .01199 .01188 .01182 .01159 .01152 .01173 .01190	CAB .02264 .02252 .02217 .02211 .02199 .02174 .02158 .02183		

BASELINE (LARC UPWT 1118) LA-63A

(RJ4034) (28 OCT 75)

REFERENCE DATA

SREF = BREF = SCALE =	474.8000 IN	.FT. XMRP CHES YMRP CHES ZMRP		000 IN. X0 000 IN. Y0 000 IN. Z0				ALPHA = SPDBRK = ELEVON =	14.000 55.000 -10.000	BOFLAP = GRITNO = BETA =	.000 50.000 .000
		RUN NO.	21/0	RN/L =	2.00						
MACH	AILRON	CN	CA	CLM	CBL	CYN	CY	CL	CD	L/D	ELEVON
1.500	-5.404	.61183	.12029	00977	00812	00647	.00643	.56323	.26753	2.10527	-10.12154
1.500	-4.079	.60593	.11895	00981	00656	00630	.00670	.55787	.26473	2.10734	-10.05914
1.500	-1.918	.61016	.11707	00981	00335	00534	.00509	.56242	.26398	2.13058	-9.95371
1.500	955	.60745	.11689	00972	00242	00516	.00369	.55985	.26312	2.12778	-9.98737
1.500	102	.60841	.11677	01015	00061	00460	.09403	.56081	.26323	2.13051	-9.83426
1.500	1.025	.60648	.11714	00943	.00058	00432	.00377	.55885	.26311	2.12406	-10.03198
1.500	2.032	.61120	.11712	00977	.00196	00392	.00250	.56342	.26428	2.13191	-10.04519
1.500	4.032	.60990	.11858	01135	.00486	00341	.00241	.56181	.26534	2.11732	-9.95241
1.500	4.761	.60965	.11914	01140	.00598	00312	.00075	.56143	.26582	2.11205	-9.92343
1.500	5.894	.61198	.11972	01211	.00749	00267	.00000	.56354	.26697	2.11091	-9.89823
1.500	7.932	.61125	.12109	01280	.00987	00165	00193	.56251	.26810	2.09810	-10.02676
1.500	9.783	.61356	.12264	01458	.01213	00109	00155	.56436	.27016	2.08903	-9.86602

(\$J4034) (28 OCT 75)

REFERENCE DATA			

		PAHAREIRI	CLAIA	
1076.7000 IN. XO	ALPHA	14.000	BDFLAP =	.000
0000 IN YO	SPUBBY	55 000	GRITNO =	50,000

LREF = 474.8000 INCHES	XMRP = 1076.7000 IN. XO YMRP = .0000 IN. YO ZMRP = 375.0000 IN. ZO	ALPHA = 14.000 BDFLAP = .000 SPDBRK = 55.000 GRITNO = 50.00 ELEVON = -10.000 BETA = .00	00
	RUN NO. 21/0 RN/L = 2.00		

MACH	AILRON	ALPHA	Q(PSF)	ELEV-L	ELEV-R	CAC	CAB
1.500	-5.404	14.28437	476.01414	-15.52577	-4.71731	.01701	.03174
1.500	-4.079	14.27957	476.09995	-14.13806	-5.98022	.01677	.03156
1.500	-1.918	14.28243	476.05705	-11.87190	-8.03553	.01663	.03172
1.500	955	14.28014	475.97124	-10.94252	-9.03223	.01663	.03174
1.500	102	14.27989	476.09995	-9.93675	-9.73178	.01667	.03181
: 500	1.025	14.27916	475.97124	-9.00737	-11.05659	.01672	.03193
1.500	2.032	14.28200	476.09995	-8.01433	-12.07806	.01679	.03200
1.500	4.032	14.27895	476.01414	-5.92004	-13.98479	.01594	.03203
1.500	4.761	14.27865	475.97124	-5.16253	-14.68434	.01694	.03202
1.500	5.894	14.27903	476.14285	-4.00398	-15.79248	.01690	.03207
1.500	7.932	14.27816	475.88543	-2.09429	-17.95922	.01696	.03227
1.500	9.783	14.27686	476.05705	08275	-19.64928	.01693	.03253

BASELINE (LARC UPHT 1118) LA-63A

(RJ4035) (28 OCT 75)

PARAMETRIC DATA

SREF	2690.0000 SQ.FT.	XMRP	1076.7000	IN.	. xo	ALPHA =	14.000	BOFLAP		.000
LREF	474.8000 INCHES	YMRP	.0000	1N.	. YO	SPDBRK =	55.000	GR!TNO		50.000
BREF	936.6800 INCHES	ZMRP	375.0000	IN.	. ZO	ELEVON -	.000	BETA	•	.000

		RUN NO.	20/ 0	RN/L =	2.00						
MACH	AILRON	CN	CA	CLM	CBL	CYN	CY	CL	CD	L/D	ELEVON
1.500	-5.054	.66364	.11833	05136	00832			.61406	.27810	8.20808	08297
1.500	-4.046	.66552	.11761	05115	00576	00375	.00305	.61606	.27788	2.21700	03440
1.500	-2.022	.66314	.11680	04967	00391	00420	.00391	.61396	.27651	2.22040	05955
1.500	941	.66292	.11695	05019	00258	00443	.00472	.61371	.27660	2.21877	.06850
1.500	072	.66162	.11751	04914	00104	00452	.00241	.61231	.27691	2.21202	01670
1.500	1.046	.66370	.11860	05131	.00069	00464	.00415	.61406	.27838	2.20585	.04281
1.500	2.002	.66238	.11850	04970	.00199	00474	.00305	.61290	.27796	2.20460	02232
1.500	3.979	.66248	.11875	05008	.00592	00518	.00362	.61284	.27823	2.20263	00733
1.500	4.844	.66320	.11901	05031	.00688	00545	.00329	.61347	.27865	2.20162	.07690
1.500	6.064	.66337	.11945	05114	.00835	00555	.00229	.61354	.27909	2.19835	.00288
1.500	7.962	.66174	.12090	03158	.01143	00611	.00323	.61161	.28009	2.18361	.00108
1.500	9.942	.66422	.12339	05466	.01444	00688	.00411	.61342	.28308	2.16691	.17931
	1.500 1.500 1.500 1.500 1.500 1.500 1.500 1.500 1.500 1.500	1.500 -5.054 1.500 -4.046 1.500 -2.022 1.500941 1.500072 1.500 1.046 1.500 2.002 1.500 3.979 1.500 4.844 1.500 6.064 1.500 7.962	MACH AILRON CN 1.500 -5.054 .66364 1.500 -4.046 .66552 1.500 -2.022 .66314 1.500941 .66292 1.500072 .66162 1.500 1.046 .66370 1.500 2.002 .66238 1.500 3.979 .66248 1.500 4.844 .66320 1.500 6.064 .66337 1.500 6.064 .66337	MACH AILRON CN CA 1.500 -5.054 .66364 .11833 1.500 -4.046 .66552 .11761 1.500 -2.022 .66314 .11680 1.500941 .66292 .11695 1.500072 .66162 .11751 1.500 1.046 .66370 .11860 1.500 2.002 .66238 .11850 1.500 3.979 .66248 .11875 1.500 4.844 .66320 .11901 1.500 6.064 .66337 .11945 1.500 7.962 .66174 .12090	MACH AILRON CN CA CLM 1.500 -5.054 .66364 .11833 05136 1.500 -4.046 .66552 .11761 05115 1.500 -2.022 .66314 .11680 04967 1.500 941 .56292 .11695 05019 1.500 072 .66162 .11751 04914 1.500 1.046 .66370 .11860 05131 1.500 2.002 .66238 .11850 04970 1.500 3.979 .66248 .11875 05008 1.500 4.844 .66320 .11901 05031 1.500 6.064 .66337 .11945 05114 1.500 7.962 .66174 .12090 03158	MACH Allron CN CA CLM CBL 1.500 -5.054 .66364 .11833 05136 00832 1.500 -4.046 .66552 .11761 05115 00676 1.500 -2.022 .66314 .11680 04967 0039: 1.500 941 .66292 .11695 05019 00258 1.500 072 .66162 .11751 04914 00104 1.500 1.046 .66370 .11860 05131 .00069 1.500 2.002 .66238 .11850 04970 .00199 1.500 3.979 .66248 .11875 05008 .00592 1.500 4.844 .66320 .11901 05031 .00688 1.500 6.064 .66337 .11945 05114 .00835 1.500 7.962 .66174 .12090 03158 .01143	MACH AILRON CN CA CLM CBL CYN 1.500 -5.054 .66364 .11833 05136 00832 00365 1.500 -4.046 .66552 .11761 05115 00676 00375 1.500 -2.022 .66314 .11680 04967 0039: 09420 1.500 941 .66292 .11695 05019 00258 00443 1.500 072 .66162 .11751 04914 00104 00452 1.500 1.046 .66370 .11860 05131 .00069 00464 1.500 2.002 .66238 .11850 04970 .00199 00474 1.500 3.979 .66248 .11875 05008 .00592 00518 1.500 4.844 .66320 .11901 05031 .00688 00545 1.500 6.064 .66337 .11945 05114 .00835 00555 <td>MACH Allron CN CA CLM CBL CYN CY 1.500 -5.054 .66364 .11833 05136 00832 00365 .00316 1.500 -4.046 .66552 .11761 05115 00676 00375 .00305 1.500 -2.022 .66314 .11680 04967 00391 09420 .00391 1.500 941 .66292 .11695 05019 00258 00443 .00472 1.500 072 .66162 .11751 04914 00104 00452 .00241 1.500 1.046 .66370 .11860 05131 .00069 00464 .00415 1.500 2.002 .66238 .11850 04970 .00199 00474 .00305 1.500 3.979 .66248 .11875 05008 00592 00518 .00362 1.500 4.844 .66320 .11901 05031 .00689</td> <td>MACH AILRON CN CA CLM CBL CYN CY CL 1.500 -5.054 .66364 .11833 05136 00932 00365 .00316 .61406 1.500 -4.046 .66552 .11761 05115 00676 00375 .00305 .61606 1.500 -2.022 .66314 .11680 04967 00391 09420 .00391 .61396 1.500 941 .66292 .11695 05019 00258 00443 .00472 .61371 1.500 072 .66162 .11751 04914 00104 00452 .00241 .61231 1.500 1.046 .66370 .11860 05131 .00069 00464 .00415 .61406 1.500 2.002 .66238 .11850 04970 .00199 00474 .00305 .61280 1.500 3.979 .66248 .11875 05008 .00592 00518</td> <td>MACH Allron CN CA CLM CBL CYN CY CL CD 1.500 -5.054 .66364 .11833 05136 00832 00365 .00315 .61406 .27810 1.500 -4.046 .66552 .11761 05115 00676 00375 .00305 .61606 .27798 1.500 -2.022 .66314 .11680 04967 0039: 09420 .00391 .61396 .27651 1.500 941 .66292 .11695 05019 00258 00443 .00472 .61371 .27660 1.500 072 .66162 .11751 04914 00104 00452 .00241 .61231 .27691 1.500 1.046 .66370 .11860 05131 .00069 00464 .00415 .61406 .27838 1.500 2.002 .66238 .11850 04970 .00199 00474 .00305 .61280 .27796 <</td> <td>MACH Allron CN CA CLM CBL CYN CY CL CD L/D 1.500 -5.054 .66364 .11833 05136 00832 00365 .00315 .61406 .27810 2.20808 1.500 -4.046 .66552 .11761 05115 00576 00375 .00305 .61606 .27798 2.21700 1.500 -2.022 .66314 .11680 04967 00391 004920 .00391 .61396 .27651 2.22040 1.500 941 .66292 .11695 05019 00258 00443 .00472 .61371 .27660 2.21877 1.500 072 .66162 .11751 04914 00104 00452 .00241 .61231 .27691 2.21202 1.500 1.046 .66370 .11860 05131 .00069 00464 .00415 .61406 .27838 2.20585 1.500 2.002 .66238</td>	MACH Allron CN CA CLM CBL CYN CY 1.500 -5.054 .66364 .11833 05136 00832 00365 .00316 1.500 -4.046 .66552 .11761 05115 00676 00375 .00305 1.500 -2.022 .66314 .11680 04967 00391 09420 .00391 1.500 941 .66292 .11695 05019 00258 00443 .00472 1.500 072 .66162 .11751 04914 00104 00452 .00241 1.500 1.046 .66370 .11860 05131 .00069 00464 .00415 1.500 2.002 .66238 .11850 04970 .00199 00474 .00305 1.500 3.979 .66248 .11875 05008 00592 00518 .00362 1.500 4.844 .66320 .11901 05031 .00689	MACH AILRON CN CA CLM CBL CYN CY CL 1.500 -5.054 .66364 .11833 05136 00932 00365 .00316 .61406 1.500 -4.046 .66552 .11761 05115 00676 00375 .00305 .61606 1.500 -2.022 .66314 .11680 04967 00391 09420 .00391 .61396 1.500 941 .66292 .11695 05019 00258 00443 .00472 .61371 1.500 072 .66162 .11751 04914 00104 00452 .00241 .61231 1.500 1.046 .66370 .11860 05131 .00069 00464 .00415 .61406 1.500 2.002 .66238 .11850 04970 .00199 00474 .00305 .61280 1.500 3.979 .66248 .11875 05008 .00592 00518	MACH Allron CN CA CLM CBL CYN CY CL CD 1.500 -5.054 .66364 .11833 05136 00832 00365 .00315 .61406 .27810 1.500 -4.046 .66552 .11761 05115 00676 00375 .00305 .61606 .27798 1.500 -2.022 .66314 .11680 04967 0039: 09420 .00391 .61396 .27651 1.500 941 .66292 .11695 05019 00258 00443 .00472 .61371 .27660 1.500 072 .66162 .11751 04914 00104 00452 .00241 .61231 .27691 1.500 1.046 .66370 .11860 05131 .00069 00464 .00415 .61406 .27838 1.500 2.002 .66238 .11850 04970 .00199 00474 .00305 .61280 .27796 <	MACH Allron CN CA CLM CBL CYN CY CL CD L/D 1.500 -5.054 .66364 .11833 05136 00832 00365 .00315 .61406 .27810 2.20808 1.500 -4.046 .66552 .11761 05115 00576 00375 .00305 .61606 .27798 2.21700 1.500 -2.022 .66314 .11680 04967 00391 004920 .00391 .61396 .27651 2.22040 1.500 941 .66292 .11695 05019 00258 00443 .00472 .61371 .27660 2.21877 1.500 072 .66162 .11751 04914 00104 00452 .00241 .61231 .27691 2.21202 1.500 1.046 .66370 .11860 05131 .00069 00464 .00415 .61406 .27838 2.20585 1.500 2.002 .66238



1.500

1.500

3.984

5.092

.72364

.72511



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DATE 17 NOV 75 PAGE 65 BASELINE (LARC UPWT 1118) LA-63A (SJ4035) (28 OCT 75) REFERENCE DATA PARAMETRIC DATA 2690.0000 SQ.FT. XMRP - 1076.7000 IN. XO BOFLAP . .000 ALPHA . 14.000 LREF . 474.8000 INCHES YMRP . .0000 IN. YO GRITNO -50.000 SPORRK = 55.000 BREF . 936.6800 INCHES ZMRP = 375.0000 IN. ZO ELEVON = .000 BETA = SCALE -.0150 RUN NO. 20/ 0 RN/L = 2.00 MACH AILRON ALPHA ELEV-L ELEV-R CAB Q(PSF) CAC 1.500 -5.054 14.25504 .01548 476.05705 -5.13706 4.97113 .03212 1.500 -4.046 14.25636 475.88543 -4.08037 4.01157 .01650 .03236 -2.022 1.500 14.25633 476.01414 -2.08156 .01658 .03253 1.96245 1.500 -.941 14.25584 476.18576 -.87209 1.00908 .01565 .03244 -. 372 1.500 14.25530 476.05705 -.08912 .05572 .01865 .03165 1.500 14.25517 475.97124 1.046 1.08852 -1.00289 .01665 .03058 1.500 2.002 14.25585 476.01414 1.97971 -2.02436 .01563 .03043 -3.98681 1.500 3.979 14.25553 475.01414 3.97215 .01637 .03058 1.500 475.97124 4.844 14.25457 4.92063 -4.76684 .01633 .03077 1.500 6.064 -6.06070 14.25278 476.05705 6.06645 .01645 .03106 1.500 7.962 14.25180 476.09995 7.96340 -7.95124 .01648 .03112 .500 9.942 -9.76273 14.24913 475.97124 10.12135 .01642 .03114 (RJ4036) (28 OCT 75) BASELINE (LARC UPWT 1118) LA-63A REFERENCE DATA PARAMETRIC DATA SREF . 2690.0000 SQ.FT. XMRP = 1076.7000 IN. XO BOFLAP = ALPHA = 14.000 .000 LREF . 474.8000 INCHES YMRP = .0000 IN. YO SPDBRK = 55.000 GRITNO = 50.000 BREF . 936.6800 INCHES ZMRP = 375.0000 IN. ZO ELEVON = 10.000 BETA . .000 SCALE . .0150 RUN NO. 19/ 0 RN/L = 2.00 MACH AILRON CN CLM CYN CY . CD L/D ELEVON 1.500 .13398 -5.117 .73057 -.10389 -.01019 -.00024 .00252 .67507 .30972 2.17980 9.81490 1.500 -3.925 .73175 .13267 -. 0379 .00341 .30997 2.19027 10.02298 -.00856 -.00108 .67650 1.500 -2.014 .72761 .13098 -.10215 -.00492 -.00261 .00253 .67295 .30609 2.19957 9.95856 1.500 2.19975 -.978 .72750 .13070 -.10214 .30589 10.01594 -.00296 -:00361 .00286 .67288 1.500 -.015 .72752 .12955 -.10075 .30479 2.20956 -.00129 .00542 .67318 9.97072 -.00452 1.500 .999 .72583 .12958 -.10056 .00066 .00348 .30438 -.00511 .67155 5.50656 10.01310 2.008 .72458 1.500 .13010 -.10026 .00198 -.00589 .00463 .87021 . 30456 180061 9.96750

.13179

.13295

-.10080

-.10188

.00584

.00749

-.00743

-.00822

.00350

.00573

.55009

.67003

.30595

.30744

2.18631

2.17942

9.97821

9.98851

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BASELINE (LARC UPWT 1118) LA-63A

(SJ4036) (28 OCT 75)

REFERENCE DATA

PARAME	TRIG	DATA	

SREF	. 56	690.0000	SQ.FT.	XMRP	1076.7000	111.	xo	ALPHA		14.000	BOFLAP	.000
LREF .		474.8000	INCHES	YMRP	.0000	IN.	YO	SPDBRK		55.000	GRITNO	50.000
BREF	. !	936.6800	INCHES	ZMRP	375.0000	IN.	ZO	ELEVON	-	10.000	BETA	.000
SCALE :	•	.0150										

RUN NO. 19/ 0 RN/L = 2.00

MACH	ALLRON	ALPHA	Q(PSF)	ELEV-L	ELEV-R	CAC	CAB
1.500	-5.117	14.26267	475.84253	4.69783	14.93197	.01692	.03170
1.500	-3.925	14.26357	475.79963	6.09827	13.94765	.01685	.03192
1.500	-2.014	14.26081	475.75672	7.94431	11.97281	.01671	.03179
1.500	978	14.26108	476.09995	9.03919	10.99468	.01651	.03119
1.500	015	14.26241	476.01414	9.95585	9.98560	.01628	.03105
1.500	.999	14.26027	475.92834	11.01254	9.01366	.01637	.03120
1.500	2.006	14.25909	475.88543	11.97375	7.96124	.01650	.03120
1.500	3.984	14.25723	475.88543	13.95983	5.99260	.01690	.03155
1.500	5.092	14.25715	475.92834	15.08018	4.89684	.01696	.03136